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**THE MORTALITY OF SURGICAL OPERATIONS IN
THE UPPER LAKE STATES, COMPARED WITH
THAT OF OTHER REGIONS.**

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Operative Surgery in the Lake States of America has results widely different from those of the Atlantic region, and of Europe. Many operations are much less fatal here than there, so that to the most important of all questions about a proposed operation, viz., What is its danger? the Western practitioner can find no book to furnish him a correct answer. Full proof of this will be given as we proceed.

The object of the present essay is to assist the Western surgeon in ascertaining with regard to the principal operations:

1. What is their risk in the Lake States?
2. What has it been in other regions?
3. What are the opinions and precepts of the principal surgeons of the world regarding each?
4. What conclusions are we to draw for our own guidance?

Before entering upon details, we may illustrate the wide difference between the results of our surgery and that of other regions by studying the following condensed table:

TABLE I.

Showing the Mortality of the Four Major Amputations in the Lake States, compared with the same operations elsewhere. (Joint amputations excluded.)

	ARM.			FOREARM.			THIGH.			LEG.			All Combined.		
	Cases	Died.	Pr. cl.	Cases	Died.	Pr. cl.	Cases	Died.	Pr. cl.	Cases	Died.	Pr. cl.	Cases	Died.	Pr. cl.
Lake States, Hosp. and Priv. Prac. combined, with cases not stated, whether hospital or not.....	27	3	11	20	2	10	76	18	24	70	16	23	193	39	30
Lake States, Hospital Practice alone.....	10	1	10	9	1	11	20	6	30	38	5	18	67	13	19
Lake States, Private Practice alone.....	16	2	1	11	1	9	56	11	90	41	10	24	126	23	19
Pennsylvania Hospital.....	21	1	12	10	9	9	76	25	33	138	54	38	385	97	25
New York.....	27	10	27	17	2	12	51	34	47	44	13	30	136	43	32
Boston City*.....	76	14	18	68	13	19	236	68	29	267	66	25	647	161	35
Mass. General†.....	297	110	37	244	40	16	935	435	46	613	270	44	2,089	855	41
British Hospitals in general.....	374	67	18	375	32	8	925	256	38	898	177	21	2,512	532	21
"Country hospitals.....	433	19	4	378	2	5	669	123	18	618	82	13	2,084	296	10
"Paris, St. Louis, and St. Vincent's.....	25	19	54	33	11	33	119	80	67	113	71	63	300	181	60
Parisian Hospitals*.....	72	23	32	73	21	29	157	81	51	241	71	29	513	196	36
K. K. allg. Krankenhause, Vienna**.....															

* Reports of Boston City Hospital.

† Boston Medical and Surgical Journal, May 1, 1872.

‡ Works of Sir J. Y. Simpson, p. 393.

§ Mr. Callender, in St. Bartholomew's Hospital Report, 1869.

¶ Works of Sir J. Y. Simpson, p. 304.

‡ Statist. des Hopitaux de Paris, 1851-63.

** Aertzlicher Bericht, k. k. allgemeinen Krankenhause, Wien, 1861-71.

The first thing which strikes the Western surgeon in this table, is the prodigious excess of mortality reported almost everywhere. With us the average mortality of all the four major amputations combined, is only 20 per cent., while in the hospitals of the Atlantic States it is 30 per cent.; in the great Imperial General Hospital (k. k. allg. Krankenhaus) of Vienna, 36 per cent., in the British hospitals, 41 per cent., and in the famous hospitals of Paris, it attains the astounding figure of 60 per cent.

Yet these rates of mortality are not inevitable results in each region, for if we examine more closely, we find that the British country hospitals have a mortality but little greater than those of Chicago.

I pass over, for the present, the strange figures of Sir J. Y. Simpson about British private practice, which show an apparent mortality for the four major amputations, of only 10 per cent. The error of these figures has been exposed by Callender and others, and the curious way in which it occurred will be hereafter explained.

Again, if we take the important operation of herniotomy, we find a perfectly similar result, as we may see from the following figures:

TABLE II.

Showing the Mortality of Herniotomy, in the Lake States, compared with that of other Regions.

	CASES.	DEATHS.	PER CT. MORT.
Lake States.....	34	8	24
Vienna General Hospital.....	259	114	44
London Hospitals.....	326	136	42
British larger Provincial Hospitals.....	177	72	41
" smaller " ".....	118	53	45
Paris Hospitals.....	361	244	68
Combined Hospital and Private Practice in Boston, Cheever.....	27	14	52

It thus appears that the very hospitals and great masters to which we have resorted most for instruction

in surgery have the least success in curing their patients. It follows also, that as operative risks with us thus differ greatly from the rates generally given at the East, we shall be compelled to revise all the estimates, and deduce new rules adapted to the facts of our own region. It is in the hope to contribute something to this great end, that the following facts and figures have been laboriously collected.

It will be remarked by referring to Table I, that there is but little difference in the Lake States between the results of private and of hospital practice, and, I may also add, between country and city practice. Here are the figures, fractions being omitted :

Mort. of the 4 maj. amp's in Lake States Hospitals.....	19 per ct.
“ “ “ private practice in the Lake States.....	19 “
“ “ “ country “ “	20 “

In contrast to this approximate uniformity, Sir J. Y. Simpson represents the mortality of hospital major amputations in Great Britain to be four times as great as in private country practice, viz. :

British civil hospital mortality.....	41 per cent.
“ private country practice mortality.....	11 “

Two things here surprise the Western American surgeon :

1. That the difference between the hospital and private practice is so enormous—

2. That country amputations in Great Britain should be twice as successful as among the vigorous, well-fed population around our great lakes.

This last point requires consideration, and certainly looks like an error, for our country people are robust, well fed, and well housed, probably more so than the British peasantry. It cannot be the difference in skill, for though the average American grade of professional education is lamentably low, yet the country surgeons, from whom I collected these cases were picked men, all known to me to be men of education, and generally of

superior capacity. Taking them together, I pronounce them, without hesitation, to be fully equal to country surgeons in Great Britain.

After careful reflection, I think that Sir J. Y. Simpson's country statistics are grossly delusive, and that he in all honesty has fallen into a fatal error in the manner of collecting his cases. I wish to dwell upon this a little, because the same identical blunder is repeated every year by committees of medical societies, desirous of collecting surgical statistics for their reports.

Sir J. Y. Simpson printed a quantity of blank reports of amputations to be filled out with the operations and their results, and mailed these to an immense number of country surgeons, most of whom must have been personally unknown to him. Now, in the replies thus obtained, there will be three sources of error, all tending to understate the deaths and exaggerate the proportion of recoveries.

1. Those surgeons who are honest, but have chanced to have a "run of bad luck," that is, an accidental series of incurable cases, will not be likely to answer the circular. They are chagrined at the results of their efforts, and indisposed to court publicity for them. To a large extent these men will neglect to reply, and their fatal cases will be lost to the collector.

2. For analogous reasons the honest surgeon, who has had accidentally a "run" of favorable cases, feels exhilarated, and quite desirous to have them brought to notice. Such men will all respond, and thus give a preponderance of successful cases.

3. The dishonest men, (and there are perhaps some liars in Great Britain, as well as elsewhere) look upon the circular as a favorable opportunity to bring themselves into the notice, at least of Sir James, and perhaps of the rest of the world, if he should chance to publish names. They will therefore fill up the paper with false cases, or true cases with false results, or deceive more gracefully by omitting their fatal cases.

It is inevitable that statistics gathered by promiscuous circulars must be grossly delusive, and they always falsify on the successful side.

Impressed with the necessity of avoiding this error, I only applied to men of known and high-toned honesty, and almost always made my application in such a way as to secure a positive response. In this way the number of cases collected was much smaller than that obtained by Simpson, but they are truthful, and, I believe, represent correctly the results of operative surgery in this region.

If this correction could be made in Sir James' tables, I think the results of British private practice would not differ greatly from the American.

There is another mode of collecting statistics equally absurd which it may be worth while to mention here. This consists in searching the files of medical journals and picking up and tabulating the operations there recorded. The notorious fact that men for the most part go into print with only successful cases, is sufficient to show the utter worthlessness of such figures.

I have not entered upon the old dispute whether statistics are of any use. Fifteen years ago the principal English surgeons were accustomed either to scout them openly, or, when they employed them, entered a protest that they attached little weight to them. At the present time, the whole surgical world is agreed, that properly collected, they are important aids in arriving at truth.

The fact is, statistics are simply recorded experience, and cannot be ignored, any more than experience in any other form. They have the same liability to error as other methods of investigation, viz., that they may be unskillfully or dishonestly managed, and fail to reach the truth; but the same must be said of all other modes of recording experience. No sane man will pin his faith to statistics alone, but all surgeons at the present day recognize them as important aids, in our methods of research.

The cases in this essay are derived—

1. From the surgical records of Mercy Hospital, which have been carefully preserved under my own supervision since June, 1859.
2. From records of my private practice.
3. From such partial records of operations in the Marine, the County, St. Luke's and the two Women's Hospitals, as survived the great fire.
4. Notes of the operations of surgeons in Chicago and in the surrounding country, who are personally known to me, and whose statements I believe can be relied on for candor and truth.

As I desire that these statistics shall be worthy of the highest confidence, I have carefully rejected from the Lake States lists all matter furnished by persons not known to be trustworthy, as well as all tables of cases, published in journals or in reports of societies, whose mode of compilation was not fully known to me. The tables of Western practice here given, embody with absolute impartiality the failures as well as the successes of the operators, so that they may be trusted as fair samples of the operative work of this region.

In collating, for comparison with ours, the printed statistics of other regions, I have, so far as possible, rejected all figures collected by the faulty methods above referred to, but it is impossible to determine the faithfulness and honesty of distant authors with the same precision that we can that of our own acquaintances.

All military cases are omitted from the tables of Lake States surgery, but are often quoted for comparison in stating results elsewhere. There are several excellent surgeons in Chicago, such as Professors Freer, Gunn, Isham, Sherman, Powell and Bogue, who were unable to furnish me more than a very few cases, notwithstanding their extensive experience, partly because they lost all their papers in the great fire, which swept the city, and partly because the hospitals, in which they served, lost

their books in the same tremendous conflagration. Otherwise the tables might have been more extensive, though the ratios of mortality would not have been materially changed.

The hospital cases are almost entirely derived from the records of Mercy Hospital, and it is worthy of notice that, contrary to the experience elsewhere, their results have equaled those of private practice. I attribute this good fortune mainly to the special care which I have given to ventilation and other antiseptic measures.

AMPUTATIONS.

First among these we will consider the disarticulations of the shoulder joint, of which very few have occurred in this city. In my own practice, I have uniformly preferred excision of the joint wherever the choice was possible, because it is not only less dangerous but leaves a very useful limb.

TABLE III.
Amputations at the Shoulder Joint.

OPERATOR.	AGE.	REASON FOR OPERATION.	COMPLICATIONS.	OPERA- TION.	GENERAL CONDITION AT TIME OF OPERATION.	TIME FROM BEGINNING OF OPERATION.	RESULT.	TIME FROM OPERATION TO DEATH OR RECOVERY.	HOSPITAL OR PRIV. PRACTICE.
Dr. E. Andrews.....	.....	Comp. fract. humerus from R. R. cars.....	Tissues of chest torn	Flap.	.....	Primary.	Recovered.	42 days.	Hospital.
" A. Fisher.....	30 yrs.	Gunshot fracture at joint.....	.....	.....	Medium.	7 days.	"	.....	"
" Hooper.....	33 "	R. R. fracture humerus.....	None.....	.....	Good.	3 "	Died +	36 hrs.	"
" J. H. Hollister.....	34 "	Caries of humerus after ampt. at mid. 3d..	None.....	.....	Bad.	.....	Recovered.	.....	Priv. Prac.
Cook Co. Hospital*.....	.....	Disease of parts.....	.....	.....	.....	.....	Died.	.....	Hospital.
Dr. A. J. Baxter.....	36 "	Necrosis after fract. humerus.....	None.....	.....	Bad.	6 weeks.	"	.....	Priv. Prac.
" A. J. Baxter.....	35 "	Compound fract. humerus.....	None.....	.....	Good.	Primary.	Recovered.	.....	"
" A. J. Baxter.....	35 "	Compound fract. shoulder.....	None.....	.....	Medium.	"	"	.....	"
" A. J. Baxter.....	.....	Necrosis of humerus after ampt. of arm..	None.....	.....	"	6 months	"	.....	"
" A. J. Baxter.....	.....	Compound fract. of humerus.....	.....	.....	"	Primary.	"	.....	"
" E. W. Leo.....	50 "	Compound fract. of humerus.....	.....	.....	Bad.	.....	"	4 weeks	"
" E. W. Leo.....	45 "	Compound fracture of humerus.....	.....	Flap.	"	Primary.	"	5 "	"
" S. Marks.....	34 "	Traumat. aneurism of subclavian artery..	.....	.....	Medium.	8 weeks.	"	4 "	Hospital.

* Surgeon's name not recorded.

† Cause of death, pyemia.

Total, 13 cases.

RECAPITULATION—Recovered, 10, of which 5 were primary, 2 secondary, 1 pathological, and 2 not stated.
Died, 3, of which 2 were secondary, and 1 pathological. General mortality, 23 per cent.
Hospital practice, 5 cases, of which 2 died. Private practice, 8 cases, of which 1 died.

DISARTICULATIONS OF THE SHOULDER ABROAD.

I find the following records of this operation in various countries :

TRAUMATIC PRIMARY CASES.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Boston Med. Jour., 1872.....	7	4
Boston City Hosp. Rept., Dr. Cheever.....	9	7
Mass. Gen. Hosp., 1871.....	15	8
Penn. Hosp., Dr. Norris.....	11	2
U. S. Marine Hosp. Repts., Dr. Woodworth.....	1	1
St. Thomas Hosp. Rept., London.....	2	1
St. Bartholomew's Hosp., London, Mr. Callender.....	2	0
St. George's Hosp., London.....	3	3
K. k. allg. Krankenhaus, Wien.....	8	4
Dr. Herrgalt, Strasburg.....	1	1
Leeds Gen. Infirmary, Mr. Nunnely.....	9	4
Glasgow Infirmary, Glasgow Med. Jour., 1854.....	19	8
Siege of Antwerp, Schmidt's Jahrbücher, vol. 156, p. 249.....	5	0
Paris, 1830—32—48, " " " ".....	2	1
Crimean War, " " " ".....	172	105
Italian " " " ".....	12	5
British Mil. Hosp., Brussels, 1815, Guthrie's Com.....	6	1
Schleswig Holstein War, Schmidt's Jahrbücher, vol. 156.....	6	3
War of 1866, " " " ".....	2	0
Battles of Vittoria, Pyrenees and St. Sebastian, Guthrie, quoted in Dict. des Sci. Med., Art. Amputations.....	19	1
Totals.....	311	159

Mortality, 51 per cent.

TRAUMATIC SECONDARY CASES.

	CASES.	DEATHS.
New York Hosp., Boston Med. Jour., 1872.....	4	2
Boston City Hosp. Rept., Dr. Cheever.....	2	1
Billroth's Letters.....	1	0
Dr. Herrgalt, Strasburg.....	1	1
Battles of Vittoria, Pyrenees, and St. Sebastian, Guthrie, quoted in Dict. des Sci. Med., Art. Amputations.....	19	15
Glasgow Infirmary, Glasgow Med. Jour., 1854.....	7	4
Siege of Antwerp, Schmidt's Jahrbücher, vol. 156.....	3	2
Paris, 1830—32—48, " " " ".....	2	1
Crimean War, " " " ".....	56	35
Italian War, " " " ".....	34	16
Schleswig Holstein War, " " " ".....	4	3
War of 1866, " " " ".....	9	3
Dutch and German War, " " " ".....	4	1
British Mil. Hosp. in Brussels, 1815, Guthrie's Com.....	12	6
Totals.....	158	90

Mortality, 57 per cent.

From these figures it appears that the mortality of this operation abroad averages 50 per cent., which is more than twice that observed in the Lake States.

The primary amputations are a little less fatal than the secondary, but pathological cases are everywhere the safest, being only 29 per cent. abroad, and in the Lake States still less.

All the shoulder amputations are more fatal than resection, hence amputation should only be performed when resection is inadmissible. We shall discuss the relative dangers more fully when we come to treat of resections. At present it suffices to say that the operation is not justifiable for such cases as mere caries, compound fracture of the joint, etc., etc., for which it is occasionally performed.

OPINIONS OF AUTHORS.

Demme's statistics show that for gunshot fractures of the shoulder, excision gives the best, and conservative treatment the worst, results.

Dr. A. Kadis (Petersburg Med. Paper, 1869) says resection gives the best results, and disarticulation should be used only in the worst, and conservative treatment in the lightest cases; excision to be employed when the bone is comminuted and likely to become carious.

Joseph Lister says (Holmes' Surg., vol. V, p. 637): "Amputation at the shoulder-joint * * * yields very satisfactory results."

T. Holmes says (Holmes' Surg., vol. V, p. 664) amputation is only to be performed for injuries of the shoulder too extensive for excision, but is to be preferred for rapidly growing tumor of the head of the bone, especially if cancerous, but never for ankylosis.

Gant's Surgery, p. 289, says that in bullet wounds of the shoulder, amputation is not equal to excision; p. 454, speaking of compound fractures of the head of the humerus, that "amputation must be resorted to in any additional injuries to the vessels and nerves;" p. 673,

says amputation is less favorable than excision by about 6 per cent.

Guthrie advocated amputation at the shoulder for gunshot fractures of the upper part of the shaft of the humerus.

Erichsen (*Surgery*, vol. I, p. 203) advises to resect such cases, unless important vessels and nerves are destroyed also.

Ashurst (p. 117) says the results of this amputation are "tolerably favorable."

CONCLUSIONS.

1. Amputation at the shoulder in the Lake States has a mortality only half that stated in the books.

2. It may be practiced when the parts below are so destroyed by violence or invaded by cancer as to admit of no more distal operation.

3. It should not be practiced for caries, for gunshot fractures not involving the great vessels and nerves, nor for any other condition which admits of resection.

TABLE IV.
Amputations of the Arm.

OPERATOR.	AGE. YRS.	REASON FOR OPERATION.	COMPLICATIONS.	OPERATION.	GENERAL CONDITION AT TIME OF OPERATION.	TIME FROM BEGINNING OF OPERATION.	RESULT.	TIME FROM OPERATION TO DEATH OR RECOVERY.	HOSPITAL OR PRIV. PRACTICE.
Dr. E. Andrews.		Arm crushed by cars.		Middle 3d.		Primary.	Recovered	23 days.	Hospital.
" E. Andrews.		Arm crushed by machinery		{ Both arms at 2 3/4 inches below elbow } Middle 3d.		"	"	"	Priv. Prac.
" E. Andrews.		Gunshot fract. of arm.		Flap, upper 3d.		Not stand.	"	"	"
" E. Andrews.	7	Arm crushed by cars.	Leg crushed.	Re-ampt. mid. 3d.		Primary.	Died.	48 hrs.	Hospital.
" E. Andrews.	36	Necrosis of stump of humerus.	None.	Upper 3d.		15 mos.	Recovered	50 days.	Priv. Prac.
" E. Andrews.	25	Ununited fract. from gunshot wound.	None.		Good.	2 years.	"	4 mos.	Hospital.
" E. Andrews.	24	Arm lacerated by machinery.	None.	Upper 3d.		Primary.	"	"	"
" E. Andrews.	24	Cancer of stump.	None.		Med.	"	"	"	"
" E. Andrews.	25	Arm torn off by machinery.	None.	Circ., upper 3d.		Primary.	"	"	"
" E. Andrews.	70	Cancer.	None.	Upper 3d.		Primary.	"	"	"
" La Count.	45	Forearm torn off by machinery.	None.	Circ., middle 3d.		Primary.	"	"	Priv. Prac.
" La Count.	45	Mortification of forearm after fract.	Abscess in arm.	Flap, upper 3d.		Second y	"	"	"
" La Count.	25	Forearm torn off at elbow by machinery.	None.		"	Primary.	"	"	"
" La Count.	25	Injury.	None.		"	Second y	"	"	Hospital.
Cook Co. Hospital.		Injury.	None.			3 days.	"	"	"
Do. H. Wardner.	13	Arm and fract. forearm.	Tight band, and mort.	Upper 3d.		Primary.	Died.	5 weeks.	Priv. Prac.
" H. Wardner.	13	Arm crushed by R. B.	Chest injured severely.			2 weeks.	Recovered	4 weeks.	"
" H. Wardner.	13	Compound fract. elbow.	Erysipelas & gangrene.	Lower 3d.		"	"	"	"
" E. D. Kittoe.	14	Necrosis bones of arm and forearm.	None.	Middle 3d.		Second y	"	"	"
" E. D. Kittoe.	23	Member mortified by tight binding.	"	Upper 3d.		Primary.	"	"	"
" E. D. Kittoe.	23	Gunshot wound of elbow and arm.	Great shock.	Flap, upper 3d.		"	"	3 weeks.	"
" E. W. Lee.	10	Compound fract. humerus.	"	Upper 3d.		"	"	4 "	"
" E. W. Lee.	20	Compound fract. humerus.	"	Upper 3d.		"	"	4 "	"
" S. Marks.	26	Traumatic gangrene.	"	Upper 3d.		"	"	10 days.	Hospital.
" S. Marks.	21	Compound fract. humerus.	Tetanus.	Lower 3d.		30 hours.	Died.	"	"
" S. Marks.	30	Compound fract. humerus.	"	Upper 3d.		Primary.	Recovered	6 weeks.	Priv. Prac.
" S. Marks.	5	Compound fract. humerus.	"	Lower 3d.		"	"	18 days.	"

* No. in Andrews' Surgical Record, 8,399.

+ No. in Andrews' Surgical Record, 8,421.

† Had tetanus 30 days.

§ Cause of death, gangrene.

RECAPITULATION.

	CASES.	DEATHS.	PER CENT. MORTALITY.
Total Number.....	27	3	11
Traumatic, primary.....	15	3	20
" secondary.....	8	0	0
Time of operation not stated.....	1	0	0
Pathological.....	3	0	0
Hospital Cases.....	10	1	10
Private Practice.....	16	1	6

AMPUTATION OF THE ARM ABROAD.

The following figures give a fair view of the world's experience in this operation :

TRAUMATIC PRIMARY.

AUTHORITIES.	CASES.	DEATHS.
British Mil. Hosp. in Brussels, 1815, Guthrie's Com'n'taries.	21	4
American War of Secession, Confed. Army, Warren, of N.C.	92	16
New York Hosp., Bost. Med. Jour., May 1, 1872.....	14	0
Pennsylvania Hosp., " " " " " ".....	58	5
Boston City " " " " " ".....	14	4
Mass. Gen. " " " " " ".....	36	7
Guy's Hosp. Reports, London.....	15	6
St. Thomas' Hosp., " " " " " ".....	2	1
St. Bartholomew's Hosp., " 1853-71.....	45	4
St. George's " " " " " ".....	3	2
Mr. Richardson, at Birmingham, England, 1853-64.....	32	12
Various German Surgeons, Franco-German War.....	22	10
Mr. Nunnely, Leeds Gen. Infirmary, England.....	62	22
Crimean War, Schmidt's Jahrbücher, Bd. 156, S. 249.....	849	489
Dr. Löffler, Danish War with Prussia.....	19	9
Dr. Beck, at Tauberbischofsheim.....	7	3
Siege of Antwerp, Schmidt's Jahrbücher, Bd. 156, S. 249.....	9	1
Franco-German War, " " " " " ".....	40	19
Schleswig-Holstein War, " " " " " ".....	19	9
War of 1866, " " " " " ".....	7	3
Totals.....	1,366	624

Mortality, 46 per cent.

TRAUMATIC SECONDARY.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Bost. Med. Jour., May, 1872.....	4	1
Pennsylvania " " " " " ".....	9	3
Boston City " " " " " ".....	8	5
Mass. Gen. " " " " " ".....	8	3
Guy's " London.....	12	7
St. Thomas' " ".....	2	0
St. Bartholomew's Hosp., London, 1853-71.....	29	9
St. George's " ".....	3	3
Mr. Richardson, Birmingham, 1853-64.....	15	3
Various German Surgeons, Franco-German War.....	16	9
British Army in the Crimea.....	16	6
Schleswig-Holstein War, Dr. Löffler.....	12	8
Dr. Beck, at Tauberbischofsheim.....	14	3
Maas and Billroth, each a case.....	2	2
Seige of Antwerp, Schmidt's Jahrbücher, Bd. 156, S. 249.....	2	1
Crimean War, " " " ".....	146	86
Franco-German War, " " " ".....	31	21
Schleswig-Holstein War " " " ".....	12	8
War of 1866, " " " ".....	15	4
American War of Secession, Confed. Army, Warren.....	100	38
British Mil. Hosp., Brussels, 1815, Guthrie's Commentaries.....	51	13
Totals.....	507	232

Mortality, 46 per cent.

TRAUMATIC, TIME NOT STATED.

AUTHORITIES.	CASES.	DEATHS.
Circular No. 6, Surg. Gen. U. S. A.....	1,949	414
" " 3, " " " ".....	24	5
Schleswig-Holstein War, Esmarch.....	54	19
Lucke, of Berne, Deutsch Zeit. für Chir., Bd. 2, S. 380.....	7	5
Stromeyer's Handbuch.....	4	0
Italian War, Schmidt's Jahrbücher, Bd. 156, S. 249.....	378	216
Hosp. at Langensalza, Stromeyer.....	7	1
Statist. des Hôpit. de Paris, 1861-63.....	16	10
Franco-German War, Schmidt's Jahrbücher, vol. 1856.....	31	12
War of 1866, " " " ".....	7	1
Totals.....	2,477	683

Mortality, 28 per cent.

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NOT STATED WHETHER TRAUMATIC OR PATHOLOGICAL.

AUTHORITIES.	CASES.	DEATHS.
Trans. Ill. State Med. Society, 1863.....	9	0
Pennsylvania Hospital.....	9	2
K. k. allg. Krankenhaus, Wien.....	72	23
Leeds Infirmary, England, Mr. Nunnely.....	62	22
Edinburg Infirmary, 1857-68, { Dr. E. Gurli, in Jahresbericht, }	21	12
Glasgow " 1847-68, " " " " { Gesamt. Med., Bd. II. }	101	38
St. George's Hosp. Lon. 1864-68, " " " "	7	4
Guy's Hosp., " 1861-68, " " " "	31	12
London Hosp., " 1862-68, " " " "	31	15
Middlesex " " 1867-68, " " " "	1	1
Royal Free " " 1862-68, " " " "	6	2
St. Mary's " " 1868, " " " "	1	0
Arch. Klin. Chir. Bd. II, S. 261. Practice of Dr. Beck.....	12	0
" " " " XVII, S. 510-519.....	14	4
" " " " X, S. 891.....	20	12
Totals.....	397	147

Mortality, 37 per cent.

FOR PATHOLOGICAL CAUSES.

AUTHORITIES.	CASES.	DEATHS.
New York Hospital, Bost. Med. Jour., May 1, 1872.....	3	0
Pennsylvania " " " " " ".....	4	1
Boston City " " " " " ".....	5	1
Mass. Gen. " " " " " ".....	32	4
Guy's " London, 1861-68.....	8	2
St. George's " " 1864-68.....	6	1
St. Thomas' " " " " " ".....	2	0
St. Bartholmew's " " 1853-71.....	42	6
London " " 1862-68.....	5	1
Middlesex " " 1867-68.....	1	1
Kings College " " 1863-68.....	4	2
Royal Free " " 1862-68.....	1	0
Westminster " " 1861-67.....	3	0
St. Mary's " " 1868.....	1	0
Edinburg Infirmary, 1859-68.....	19	7
Glasgow " 1847-68.....	19	1
Statist. des Hôpitaux de Paris, 1861-63.....	19	9
Med. Reports, British Army.....	3	0
Archiv. Klin. Chirurg., Bd. VIII, S. 926, 928, 1088.....	4	2
Deutsche Zeit. für Chir., Bd. II, S. 380.....	3	2
Leeds Gen. Infirmary, Mr. Nunnely.....	20	1
Totals.....	204	41

Mortality, 20 per cent.

GENERAL SUMMARY OF AMPUTATIONS OF THE ARM.

	LAKE STATES.			ABROAD.		
	CASES.	DEATHS.	PER CENT. MORT.	CASES.	DEATHS.	PER CENT. MORT.
Traumatic primary	15	3	20	1,366	624	46
“ secondary	8	0	0	507	232	46
Pathological	3	0	0	204	41	20
Traumatic, time not stated, military cases				2,477	683	28
Time and cause not stated, nearly all civil practice	1	0	0	337	147	37
Totals,	27	3	11	4,951	1,727	35

It appears, therefore, that amputations of the arm abroad have a mortality of 35 per cent., which is more than three times that of the Lake States. Civil cases abroad have also a much greater mortality than military ones, owing to the fact that soldiers are mostly young and vigorous men, and military amputations of the arm are largely done at once on the field of battle, before the patient has been subjected to the deadly miasm of the average military hospital.

(To be continued.)

A CASE OF CYSTOCELE CURED BY SIMS' OPERATION OF ELYTRORRHAPHY.

By R. M. LACKEY, M.D., MAYWOOD, ILL.

Fortunately for womankind, the disease we are about to consider is not of *very* frequent occurrence, yet it is met with often enough, and occasions sufficient suffering to demand of us the most careful study, and the best efforts for its cure.

When the anterior wall of the vagina, which adheres closely to the bladder, becomes greatly weakened and stretched from any cause, a pouch may descend into the vagina, and thus constitute a cystocele, or hernia of the bladder. This pouch may be small, and give but little

discomfort to the patient, and perhaps escape entirely the notice of the surgeon, or it may be large enough to descend to and even protrude from the vulvar orifice, causing the most intense suffering. It becomes filled with urine, which cannot be thoroughly evacuated by the ordinary efforts at micturition, and the urine thus retained decomposes and becomes the source of extensive irritation, vesical catarrh, dysuria, etc.

The suffering is intensified when the patient attempts to maintain the erect position, by a sense of weight and dragging down from the umbilicus, and intolerable tenesmus. The vagina and protruded portion of the bladder become exceedingly tender, so that an effort to pass the finger, or make an examination with the speculum, may be frustrated, unless the patient be first anæsthetized. Owing to the distress occasioned by the erect position, sufferers from this malady are liable to become bedridden, especially as the disease is always complicated with some abnormal position or condition of the uterus. Prolapsus and anterior flexion are perhaps the most frequent forms of displacement met with. Ulceration, chronic inflammation and enlargement may be present, also hæmorrhoids; these latter probably caused, or at least aggravated, by straining while attempting to void urine.

Some of the causes which operate to produce this disease are ruptured perineum, anteflexed uterus, straining, lifting heavy weights, frequent parturitions; and, in general, those agencies which most frequently cause uterine displacements and vaginal weakness and prolapse.

It is only by careful digital examination that cystocele can be detected. In passing the finger within the vulvar orifice it comes in contact with a soft, fluctuating tumor, which can be readily pressed upward. It must be borne in mind, however, that tumors of this character may attend prolapsus of the vaginal walls in conjunction with ascites. If a cystocele be present, by pressing up the tumor the patient will be enabled to evacuate the bladder

perfectly, and the urine contained in the pouch will be fetid and ropy. Should any-doubt exist as to the nature of the tumor, a catheter passed into the bladder will pass downward into the vesical diverticulum, and may be felt through the vagina, thus rendering certain the character of the disease.

The measures employed for the cure of cystocele are mainly mechanical support and surgical procedures. Where the tumor is slight and without embarrassing complications, some of the various pessaries, together with astringent injections and proper hygienic management, may be all that is required to afford relief; but where the disease has reached an aggravated form, and is attended with troublesome complications, no confidence should be placed in anything, save the surgical operation employed in the case I am about to relate.

The following case presents a history of interest, running back several years. It will suffice for our present purpose, however, to give briefly its history for the two years preceding the operation:

Mrs. G., aged thirty-eight years: wife of a farmer; mother of six children, youngest three years old; she is rather above medium size; tissues flabby, and poorly nourished. She has borne children rather rapidly, and did not get up well from her last confinement; had chills, pain and tenderness of the abdomen, frequent desire to pass water, dribbling of urine, obstinate constipation, pain, heaviness and throbbing in the vagina, and dragging from the umbilicus. These symptoms were especially aggravated when she attempted to get up and go about, so that, to secure any degree of comfort, she was obliged to spend most of her time in the recumbent position. While suffering in this way, she was treated for ague, inflammation and ulceration of the womb, disease of kidneys, bladder, bowels, etc. Three or four different medical men had successively had charge of her case, without seeming to discover the true nature of her complaint, or affording her any permanent relief. At

the time I first saw her she had been bedridden for more than a year, and was weak and despondent, and unwilling to submit to any further treatment. She, however, consented to an examination, and in passing my finger within the vulva, I found a soft, fluctuating tumor, the size of a hen's egg, well down between the labia majora. The hyperæsthesia of the parts was excessive, and I was compelled to desist from making a thorough examination until she was anæsthetized, which was done. When she was sufficiently under the influence of the anæsthetic I pursued my investigations further, by pressing the tumor upward so as to reach the uterus, which was found prolapsed and enlarged, and the os ulcerated. A catheter was introduced into the bladder, and it passed downward into the vesical pouch, and I was enabled to draw off a quantity of dirty, fetid urine. The vaginal mucous membrane was congested, and covered with a whitish discharge. The case was thus clearly proven to be one of cystocele, with its usual complications. Having stated the nature of the case clearly to the patient and her friends, and given some encouragement as to the success of surgical procedures, an operation was at last agreed to. Astringent applications were ordered for the vagina, and tonics and nutriment by the mouth, in the hope of improving her condition generally and locally, before proceeding further.

Elytrorrhaphy.—This is the elegant term employed to designate the operation for lessening the calibre of the vagina, for the cure of cystocele, prolapsus uteri et vaginæ, rectocele, etc.

It is a long while since the first attempts to perform the operation were essayed, but without complete success until the use of Sims' duck-bill speculum, and the means it affords of perfectly exposing the vaginal walls. The operation now in most common use is known as 'Sims' Operation of Elytrorrhaphy,' and is attended with very favorable results.

In the case here reported, the amount of tissue to be

got rid of was very large, and some doubts arose as to a single operation resulting in complete relief. The patient having improved sufficiently to warrant us in proceeding, the operation was performed as follows:

She was etherized and placed in the position recommended in the operation for vesico-vaginal fistula; a curved sound with tenaculum points was fixed in the os uteri, and the walls of the vagina made to fold over it, so as to determine where union must take place. I then proceeded to denude the edges of these folds, commencing at the neck of the bladder, and extending upward as high as the os uteri. The sound was then removed, and the line of denudation continued transversely, connecting the other two, making a triangular or trowel-shaped space two inches wide at the base. The amount of hæmorrhage was inconsiderable. These denuded lines were then drawn together with fifteen interrupted silver sutures, passed from their point of entrance on one side of the freshened lines through the triangular space to the point of exit on the other side. The upper one, through the base of the space, was passed as a running stitch, so as to shut up the opening that would otherwise be left in the sack formed by this fold of the vaginal walls. This latter point is especially insisted on by Dr. J. Addis Emet, for if the opening is not thus closed, the os uteri becomes engaged in it, and it may also become filled with the discharges.

The operation was tolerably well borne. Some retching followed, and I remained with her while this lasted, and kept a sponge in the vagina to support the weak point, lest the straining should tear loose the sutures. The bladder was emptied with a catheter every five or six hours for five days, when she was then able to dispense with it. The dribbling ceased also. The bowels were kept quiet for a week, and then moved by enema. Half the sutures were removed on the fourteenth day, and the rest on the seventeenth day. On removing the last sutures the union was found to be complete, and the

constriction sufficient to retain the bladder in place. The uterus was in its normal position also. The patient's general health improved rapidly, so that at the end of six weeks after the operation she was able to be up and move around with more comfort than for many months previously. The hyperæsthesia had so far disappeared that she could endure vaginal examination without taking ether.

A report from the case six months afterward shows that the improvement continued permanently ; the cure of the cystocele and its complications was complete. The patient had so far recovered that she was attending to her household duties, and had taken a journey some distance to visit friends.

The results in this case would lead us to believe that this operation should be resorted to more frequently than it is, for the radical cure of vesico-vaginal hernia, and prolapsus uteri, where other means so often prove unavailing ; and I have no doubt it would be, were it not so difficult to get the consent of the patients to operative procedures, except in extreme cases. My object in reporting this case is to place on record some additional evidence of the usefulness of the operation, and encourage its judicious employment.

ACUTE PERICARDITIS—CAUSES—REPORT OF CASES.

By D. A. K. STEELE, M.D., CHICAGO.

(Read before the Chicago Society of Physicians and Surgeons, Feb. 28th, 1876.)

MR. PRESIDENT, AND GENTLEMEN OF THE SOCIETY :

Presuming that you are thoroughly conversant with the anatomy of the "fountain of life," we will at once proceed to consider some of the causes of an acute pericarditis.

Most frequently this affection is secondary in its development, arising in connection with an attack of rheumatic

fever, or in the course of Bright's disease, or resulting from the extension of a contiguous inflammation, as pleurisy or pneumonia; these are certainly the most frequent causes, according to my observation. Among other causes mentioned are low forms of fever, pyæmia, puerperal fever, scarlatina, scurvy, adjacent abscesses, etc. Among primary causes are mechanical violence, penetrating wounds, and "cold," exciting a local inflammation.

CASE I. Pericarditis and Bright's disease—tetanic spasms—death—post-mortem exhibit.

John Crane, miller, æt. 27, German, was admitted to Cook County Hospital Dec. 30th, 1873, during the service of Prof. J. P. Ross. States that he enjoyed good health until seven years ago, when he contracted syphilis, followed by constitutional symptoms. About two and a half years ago, while in the South, had intermittent fever and diarrhœa, for some six months, when he went to New York and was an inmate of a hospital for nineteen months, suffering from general dropsy. Left the hospital four months ago nearly recovered from the dropsy; the right leg still remains a little swollen and has a few ulcers upon it, for the relief of which he was admitted to the ward. After being in the hospital about two weeks, during which time he was up and around the ward, he was attacked with slight rigors. Diarrhœa, nausea and vomiting followed in a few days, with shortness of breath and pain in the region of the heart.

Jan. 17th. On examination find skin hot, tongue dry and brown in centre; appetite poor; patient restless, sleeps poorly. Pulse 120, weak; resp. 20. Auscultation reveals a to-and-fro friction sound all over the præcordial region. Ordered a hot poultice, and gave morphia to control pain. Also quiniæ sulph. gr. iij ter die, and turpentine and laudanum emulsion, with one-thirty-second of a grain of strychniæ sulph., every four hours.

Jan. 18th. Had considerable pain in chest last night,

although during the night he took one gr. morphia ; was restless and uneasy ; friction sound still heard ; area of præcordial dullness is increased.

2 P. M. Patient began to be very restless and uneasy ; has slight delirium.

4 P. M. Lost all consciousness and began having tetanic spasms ; head thrown back ; twitching of the muscles of the face and arms ; pulse full and strong ; breathing slow and stertorous ; pupils contracted, but respond to light. Ordered blisters behind the ears, and bromide potash gr. xv every hour.

11 P. M. Patient has had several spasms, his head is thrown back ; still unconscious. On attempting to have him swallow, spasms are induced. Pulse 140, full and strong. Is winking constantly and rolling his eyes ; both arms jerk and twitch ; legs drawn up.

12 M. Had a severe convulsion, and died.

Post mortem 36 hours after death. Pericardium contained about 4 oz. of serum ; abundant recent lymph covering heart and pericardium. Heart hypertrophied ; lungs and brain healthy ; kidneys small and fatty.

CASE II. Idiopathic pericarditis, with effusion—pneumatic aspiration—death—autopsy. (This case was reported in full before the Society, Oct. 12th, 1874.) The following is a synopsis :

Edward S., aet. 45, laborer, Germany ; weight one hundred and seventy pounds ; height five feet eleven inches. Was admitted to the County Hospital Sept. 22nd, 1874, stating that he had been well until ten weeks prior to admission, when, becoming overheated, he took a violent cold. Had several slight chills, followed by high fever and cramping pains in left side in region of the heart ; pain was aggravated by a deep inspiration. Had no cough, appetite poor, bowels costive, breathing labored. This difficulty continued for about four weeks, when he began to convalesce and went to work. In about three weeks, after another exposure to cold, he was again attacked with pain in left chest, similar in character to

the first; began to cough, raising a scanty frothy sputum; breath has gradually become shorter for the past two weeks. Is very restless and uneasy. Has never had rheumatism or syphilis.

On admission, find patient a large, well nourished man; lies on left side, with shoulders elevated and thighs flexed on abdomen; breathing hurried and laborious; face anxious and cyanosed; skin cool and moist; tongue flabby, tremulous, and coated brown. Pulse 132, small, thready and irregular. Resp. 28.

Physical examination. Inspection reveals bulging of left chest and præcordial region, partial obliteration of the intercostal spaces and decided loss of motion in left chest; epigastric protrusion; heart communicates no thoracic shock.

Percussion gives complete dullness over a somewhat triangular space in left chest, the base of which would correspond to a transverse line drawn from left axillary region three inches below left nipple to a point two inches to right of xiphoid appendix, apex five inches above and one and a half inches within left nipple. The dullness is but slightly altered by postural change. Behind, fair resonance.

On auscultation, bronchial breathing at apex of left lung; below third rib, an absence of all lung sounds; behind, over apex of left lung bronchial breathing, over middle, broncho-vesicular with mucous rales; below bronchial again, with fine crepitant rales and occasional friction. On listening, over cardiac region find an absence of all heart sounds; along the right border of sternum, a few to-and-fro pericardial friction sounds. Applied warm jacket poultice and gave alcoholic stimuli. Dyspnœa increasing, next morning Prof. H. A. Johnson was summoned, and tapped pericardial sac with the aspirator, through the fifth intercostal space, two inches to the left of sternum, withdrawing about one ounce of bloody serum, with no inconvenience to the patient. He was then given carb. ammonia, quinia and camphor, and the chest painted with tr. iodine.

24th. Expresses himself as feeling a little better; breathes easier. Continued treatment, with but little change of symptoms or physical signs, until 28th, when a pleuro-pneumonia of the left chest manifested itself, with a corresponding increase in the gravity of the symptoms. Warm poultices were kept continuously applied to the chest, with artificial heat to the extremities, and the exhibition of stimulants.

30th. A consultation of the staff was held, and it was determined to again use the aspirator. Dr. Johnson introduced the canula near the point of previous puncture, but carried it a little higher, and on turning the stopcock was rewarded by seeing a full stream of bloody serum flowing from the pericardial sac into the receiving bottle. Eleven and one-half ounces were withdrawn, when the canula was removed. No unpleasant symptoms occurred. The immediate effect of the operation was to relieve the turgescence of the superficial vessels, and steady and strengthen the heart's action. Breathing became easier, and the apex beat of the heart could be seen for the first time, striking a little to the left and higher than normal; cardiac sounds distinctly heard; bulging of intercostal spaces less marked. Half an hour after the operation, pulse 132; resp. 28.

Oct. 1st. Pneumonic inflammation more extensive; extremities cold, radial pulse imperceptible; heart's action rapid, feeble and irregular; general cyanosis; constant nausea and vomiting; gradually sank, and died at one o'clock the following morning.

Autopsy fourteen hours after death. On lifting up sternum, found pericardium immensely distended with fluid, occupying nearly the whole of the left chest, and overlapping the right lung for two or three inches. Diaphragm depressed, moderate pleuritic effusion in both chests. On opening pericardium, found it much thickened and congested, containing a very large amount of bloody serum. Point of last puncture readily seen; point of previous puncture closed by adhesive inflam-

mation. Heart hypertrophied, dilated, and apparently inflamed, outer surface covered with tenacious, coagulated lymph, arranged in segregated layers resembling villi, varying in depth from one-half to one inch, and adhering so firmly to heart as to be with difficulty removed. Pericardium adherent to heart around base by means of this plastic deposit. Left lung throughout pneumonic, in a state of red hepatization, and firmly adherent to chest walls by recent pleuritic adhesions; right lung congested; kidneys, liver and spleen very much congested; other organs not examined. The heart and sac together weighed four pounds.

CASE III. Rheumatic pericarditis and organic disease of heart—death—post-mortem.

Jan. 4, 1876. I was called to see Jennie S., æt. 11, American, who gave the following family history: Father dead one year, from an overdose of tartar emetic, prescribed by a drunken nurse. Father had been in failing health for a number of years; was troubled with slight cough, shortness of breath and palpitation of the heart; was supposed to have heart disease. Mother living and well, although never robust. Four sisters living, all in poor health, three of them suffering from organic disease of the heart, hypertrophy with mitral insufficiency. All of the children had scarlatina when small; none of them ever had rheumatism, except the little patient, who four years ago, for the first time, suffered from acute articular rheumatism; was treated by Dr. W. T. Montgomery, with alkalies internally, and tinct. iodine and hot fomentations locally; was sick about four months. Every winter since then has had attacks, lasting from a few days to a number of weeks. For past three years has been troubled with palpitation, shortness of breath on slight exercise, and occasional cough. Was treated by me ten months ago for rheumatic endocarditis and pneumonia; was sick then about three weeks; ever since has had a loud mitral regurgitant murmur and gradual enlargement of the heart. General health, aside from this,

has been good ; has gone to school most of the time. For the past few days has complained of pain in the ankles, knees, wrists and shoulders ; at times feels a little feverish, sleeps poorly. Find joints swollen and tender, skin hot, tongue furred, pulse somewhat accelerated. Prescribed potassæ acetat, potassic iodide, and tr. digitalis, with Dover's powders at night ; affected joints to be rubbed with chloroform liniment, and swathed in cotton wool.

Jap. 5th. Rested well ; feels a little better.

6th. Complains of gastralgia and nausea. Discontinued the acetate and iodide of potash, and substituted the bicarb. of soda. Ordered morph. sulph., gr. $\frac{1}{4}$, as required to relieve pain.

7th. Gastric irritability less, although still no desire for food. Pulse, 110, full. Joints not so painful ; has a troublesome dry cough ; lung sounds about normal, left lung a little feeble.

8th, A. M. Very restless last night ; complains of pain in region of heart this morning. On making a stethoscopic examination of chest, find a harsh to-and-fro pericardial friction sound over nearly the whole præcordial region ; valvular murmur more distinct ; heart's action strong and full. Applied hot flaxseed poultice to the entire left chest. P. M. Exquisite pain over the entire præcordia ; breathing hurried ; eyes congested ; tongue heavily furred ; pulse, 130. Gave saline cathartic, and continued hot flaxseed meal poultices.

9th. Dr. S. A. McWilliams saw the patient with me. Pain is excruciating ; constant dry cough. Requires hypodermic injections of morphia, gr. $\frac{1}{4}$, morning and evening, to procure any rest. Ordered, pot. iodide, gr. v ; tr. digitalis, gtts. xv ; tr. gelseminum, gtts. viij ; syr. prunus. virg., 3j, every three hours. Applied fly blisters locally.

15th. For the past week the above treatment has been continued, with the occasional substitution of potassic bromide for the morphia, which, however, does not con-

trol the pain. The general condition of the patient remains about the same. Pulse a little above 100 and rather feeble. Physical signs unchanged.

16th. No pain in joints; severe pain through the temples and in præcordia. She takes milk, beef tea and wine freely. Bowels have been kept soluble with citrate of magnesia.

20th. Physical signs as before, except that the friction sound is not so distinct; heart's action more feeble, and occasionally intermits; cerebral pain very severe. At times is in a state of maniacal excitement, occasional delirium; rests only for a short time, and then under the influence of morphia; takes nourishment pretty well.

21st. Passed a very restless night; constantly sits up with the chest inclined forward; sleeps in this position; can not lie down; says she can not breathe if she does, face becomes purplish and anxious when she attempts it. Pulse, 115, intermittent and feeble. Get increased cardiac dullness in front; friction sound not so distinct; heart's impulse still seen and felt. Applied emplastrum cantharidis to chest.

22d. Symptoms unchanged. Chest so tender as not to admit of an examination; covered it with cotton wool and oil silk.

23d. Pulse, 120, small, weak and irregular; respiration labored; facial expression more anxious. On examination, decided loss of motion in left chest; grazing pericardial friction still present, but feeble as compared with that first heard. P. M. Delirious; gradually sank, and died at nine o'clock.

The mother, an intelligent lady, readily granted permission to hold a post-mortem examination, and twenty hours after death I made the autopsy, in the presence of Dr. P. S. Hayes and Messrs. Beale, Bean and Warren, students of medicine. Incision from manubrium to umbilicus, down mesial line. Both pleural cavities contained a considerable quantity of serum. Although there were no evidences of a recent inflammation, a few old

pleuritic adhesions were found. Right lung normal; left lung small and somewhat atrophic; crepitates throughout; no tubercle. Pericardium firmly adherent to the heart in front and at the sides; behind distended, with flakey serum to its utmost extent. Behind it was intensely congested, and at one point seemed almost gangrenous. On laying open the sac, found the firm adhesions from recent bands of lymph already noted. (These adhesions readily explain why we got the cardiac sounds and frictions so distinctly after the effusion occurred. Ordinarily, after a pericardial effusion, the heart sounds become feeble or are lost, and the impulse disappears.) Heart and pericardium weighed $20\frac{1}{2}$ ounces. Weight in this patient should not have exceeded nine or ten ounces. On opening the left ventricle, find mitral valve thickened and roughened by a deposit about the margins of the curtain, while just within the left auricle there is a patch about the size of a silver half dollar, of rough, thickened deposit, in the endocardium. The endocardium is red and inflamed, while the muscular tissue of heart was unusually vascular, probably the seat of a rheumatic inflammation. Stomach apparently healthy. Liver enlarged and congested. Other organs not examined.

These cases, you will observe, were all connected with some other grave disease.

SPONTANEOUS CURE OF AN OVARIAN TUMOR.

BY OWEN WRIGHT, A. M., M. D.,

LATE MILITARY SURGEON, OF MASON, ILL.

On the 20th of November, 1875, I was called to see Mrs. A. B. I arrived at the house at 4 o'clock, P. M. She was expecting to be confined at any hour, but was not presenting any symptoms of labor. At 10 o'clock of same day, she was taken with a chill and fever; and

when I saw her, the breathing was 28, and the pulse 200 per minute. I was not able to ascertain the cause of the excitement, although I knew it was of local origin. I remained with her all night, and met the indications for treatment according to my abilities. At 5 o'clock the next morning, labor came on and terminated favorably in one hour. It was not till after the child was born, that I was able to discover the cause of the chill and fever.

In the region of the left ovary was a tumor, that the lady had never noticed ; she was so very large (although a medium-sized woman) that I did not find it, notwithstanding I moved my hand over that region several times. The patient was so feeble, that I gave her constitutional treatment the following four weeks. All this time the tumor continued to enlarge ; and its pressure from within outwards, caused an injury to the external parts, immediately above the os pubis.

My diagnosis was a cystic tumor of the ovary ; and the 30th day after delivery, I performed the operation of paracentesis, and drew off about one gallon of serous fluid. It continued to discharge one week, during which time, the parts exterior, all of three by five inches, sloughed away, so that the remains of the tumor could be seen. During another week, the wound failed to heal, and a second like tumor reached half the size of the former. At this period the prospect of success was not very flattering. Another week under treatment, and the tumor burst, and almost at the same time the fluid entered the womb through the fallopian tube and was discharged through the vagina. After this the wound began to heal ; the vaginal discharge continued occasionally another week. The constitutional symptoms improved rapidly, and at the end of three months, the mother walked out doors.

During her pregnancy, the mammary glands did not increase in size. I do not think either of them would have weighed over one ounce, till about the ninth week

after her delivery, when she noticed that her breasts were filling.

She is about 30 years old ; her weight is 130 pounds. She has borne two other children, and each time was afflicted with nursing sore mouth.

CONCUSSION OF THE BRAIN.

By F. W. MERCER, ASST. PHYSICIAN.

Reported from Notes made June, 1875, at Illinois Southern Hospital for the Insane.

J. C. W., æt. 14, an epileptic, while climbing a ladder from the barn floor to hay mow had a fit, and fell about ten feet, striking partly upon the vertex and right parietal region.

The attendant who saw him fall, went immediately to his assistance, and found him insensible. With little delay, the patient was carried to his ward and his condition reported. I saw him about twenty minutes after the injury ; he was comatose ; breathing, slow and somewhat labored ; pulse slow, eyes closed, and pupils dilated. An examination disclosed nothing but free hæmorrhage from the right ear ; he had already lost about three ounces of blood, and the flow from the ear continued steadily. Instruction given to keep him quiet in bed. Saw him again in the evening, about five hours after the injury ; had been vomiting, and could be aroused with difficulty. Hæmorrhage from ear not so free, but accompanied by a large amount of watery fluid, saturating his pillow. Pulse, 100 ; temperature, 95°. Ordered cathartic and cold applications to head.

Morning of 3rd found him sitting up, and was informed by the attendant that the patient had insisted upon leaving his bed and had walked about the ward very unsteadily, catching at articles of furniture for support, and complaining that everything about him was spinning

around. The bowels had moved during the night; the stomach had become quiet, and a large amount (several ounces) of bloody serum escaped from the ear; pulse, 120; temperature, 102°. Ordered continued rest in bed, cold to head, and carefully regulated nourishment. In the evening he appeared less restless, inclined to drowsiness, but easily aroused; pulse, 125; temperature, 103.2°; discharge from ear much diminished.

Morning of 4th. Patient said to have been restless first part of the night, but quiet and appeared to sleep after midnight; discharge from ear has ceased. His mind appears clear, and he answers questions well; wants to dress and be permitted to walk about the ward. Pulse, 98; temperature, 99°. Ordered continuation in bed, with cold to head.

Evening. He is quite talkative; no discharge from ear; pulse, 85; temperature, 99°.

Morning of 5th. He is out of bed; complains of dull headache; pulse, 90; temperature, 99°. Directed that he should be kept quiet; discontinued application to head.

Evening. pulse, 82; temperature, 99°.

6th. Out of bed this morning; pulse, 85°; temperature, normal.

8th. Is going about the house as usual; appears well.

REPORT OF THREE CASES OF UTERINE FIBROID TUMORS TREATED BY ERGOTINE,

AT THE DISPENSARY OF THE WOMAN'S HOSPITAL OF THE STATE OF ILLINOIS.

By D. A. K. STEELE, M.D., ASSISTANT SURGEON.

(Read before the Chicago Society of Physicians and Surgeons, March 27, 1876.)

Simultaneously with the publication of Hildebrandt's articles on the curative influence of ergotine upon fibroid tumors of the uterus, a general investigation was entered upon by the medical world to determine by

practical experiment the influence exerted by this drug over a hitherto almost incurable and often undiagnosed disease. The only method of determining its clinical value, is by a careful synopsis of cases treated—not the successful ones alone, but all as they fall under the reporter's observation. The following report is made, not for its intrinsic value or for the development of any new features, but simply as an addition to the literature of this important field of observation. The cases are from notes by the House Physician, Dr. Harriet M. Kollock.

CASE I. Mrs. M. N., (colored) American, aged 34, presented herself for treatment at the dispensary, March 21st, 1875, giving the following history: Married at 14; menstrual periods always regular until the past year. Has no children, but had two miscarriages eight or nine years ago. She thinks they occurred about the third or fourth months of pregnancy, and were induced by over work. One year ago she had a severe attack of sickness and was confined to her bed for six weeks, suffering from extreme pain through the uterus and lower part of abdomen. Her physician called it "inflammation of the womb." Since that time her menstrual periods have been a little more profuse and have occurred more frequently, until now there is an interval of but two weeks or less, and they continue nine or ten days. Formerly lasted but three or four days, with a month's interval. She complains of severe pain through the pelvis, especially in the left side, which is increased by walking or standing any length of time.

Examination revealed a fibroid growth in the left and posterior portion of uterine wall that could be distinctly outlined through the rectum and the left abdominal wall. Cervix hard and nodular; depth of womb three and one-fourth inches.

Treatment advised, was daily hypodermic injections of twelve drops Squibb's fl. ext. ergotine.

This treatment was continued for four or five days, but

as each injection produced considerable local disturbance and there were evidences of abscesses forming, both on arms and abdomen, where injections had been inserted. it was deemed best to discontinue this mode of administration, and the patient was directed to take ten drops twice daily, internally. She complained of having strong uterine contractions after each injection, lasting from half an hour to one hour, causing her considerable pain. The same symptoms were felt after each dose taken internally, but in a less degree.

April 14th. Patient has now taken the ergotine steadily for twenty-four days; general health much improved; has had one menstrual period during that time, continuing five days, after an interval of eighteen days. On examination the tumor appeared notably decreased in size.

June 15th. She reported at the dispensary, having taken the ergotine regularly since the 21st of March, (about three months); continued improvement in health. Periods occur at intervals of about 24 days and continue five or six, less profuse than before.

Examination. Tumor about in the same condition as when examined April 14th. Ergotine was then discontinued.

CASE II. Mrs. E. G., American, æt. 31, applied for treatment June 5th, 1875, stating that she began menstruating at the age of 13; had one period, when she took cold and had no more for six months; with this exception, was regular until she married, seven years ago. Since then, the periods have occurred more frequently, lasting from five to ten days. The intervals are never longer than three weeks, and any excitement or overwork will bring on a profuse flow, which is usually accompanied by severe pain and the expulsion of large clots. Had a constant leucorrhœa two years ago, which was improved by local treatment. Now it occurs only just before and after menstruation. Complains of pain in the left ovarian region, in the left breast, and head;

severe backache and palpitation of the heart; bowels constipated; appetite poor; menses frequent and painful. Was treated two years ago for tumor, at which time the abdomen was much enlarged; general decline of health for past two years.

On examination find a fibroid tumor occupying the left anterior uterine wall. It can be distinctly outlined through the abdominal walls, the fundus of uterus can be felt about midway between the pubes and umbilicus. Sound enters womb three and one-fourth inches.

June 7th. Commenced treatment by injecting in the arm, near insertion of the deltoid, twelve drops of Squibb's fl. ext. ergotine; this was continued daily until July 28th. The injections gave rise to no local irritation, but caused the patient to complain of severe uterine contractions and increased pain in the left breast, continuing about an hour after each injection.

June 30th. Patient reported her general health much improved. Her menstrual period continued but four days, and the interval since the last period was increased by five days.

Examination shows little or no difference in the size of the growth.

July 28th. Patient again examined. Tumor about the same size as when she applied for treatment; general health decidedly improved; menstrual periods occur now about once a month and are not at all profuse.

The ergotine was discontinued.

Jan. 7th, 1876. Patient has had no treatment since July 28th (six months.) Periods have been regular, painless and not profuse during that time.

Examination shows the tumor to be gradually increasing in size.

CASE III. Mrs. R. L., American, æt. 19.

Aug. 4th, 1875. Has been married eighteen months; was always regular and well until prematurely confined of a six months child, one year ago. She got up six days after confinement. Had no menstrual period

for three months, then had a slight show which gradually increased until for the last six months the flow has been constant, soiling three napkins daily; it is sometimes mixed with a leucorrhœal discharge. Complains of a constant pain through the uterine and ovarian regions; appetite good; bowels constipated.

Examination reveals ulceration of the cervix and a fibroid tumor in the anterior wall of the uterus; sound passed to the depth of three and a half inches. The ulceration was treated by an application of strong nitric acid, repeated again after an interval of two weeks, which entirely cured it.

Twelve drops of fl. ext. ergotine were hypodermically injected daily until Sept. 26th, when the tumor was found to have almost entirely disappeared. The hæmorrhage ceased entirely, after the first injection of ergotine, her menstrual period occurring the latter part of August, and again in September after a month's interval, and lasting but four days each time; all pain had vanished and her health much improved. The injections were discontinued and the patient advised to take twelve drops of the ergotine twice daily for a couple of weeks, and then return for a subsequent examination.

Oct. 23rd. Patient discharged, cured, the tumor having entirely disappeared, leaving nothing but a slight thickening of the anterior uterine wall. Depth of uterus two and a half inches.

Dec. 18th. Patient again examined. Uterus in a healthy condition; menstrual periods regular; general health good.

Editorial Correspondence.

AMERICAN GYNECOLOGICAL SOCIETY.

It is about a year since Dr. James R. Chadwick, of Boston, conceived the idea of forming an American Gynecological Society, the object of which should be the promotion of knowledge in all that relates to diseases of women and to obstetrics.

After consulting personally and by letter with a number of the leading gynecologists of the United States, Dr. Chadwick called a meeting to be held on the 3rd of June, 1876, at the rooms of the Academy of Medicine, No. 12 West 31st Street, New York City.

The call was made by circular letters directed to such gentlemen as it was thought would be sufficiently interested to give their time and attention to the subject. In response to this call, between twenty and thirty prominent practitioners assembled, among whom were Drs. Peasley, Barker, Thomas, Lusk, Skeen, Trask, Mundé, Sims, Byrne, Noegerath, Goodell, Chadwick, Sinclair, Jenks, Parvin, Bixby, Taylor, Byford, etc.

The meeting was called to order by Dr. Chadwick, who moved that Dr. Peasley act as temporary chairman. The motion prevailed, and in taking the chair, Dr. P. stated the object of the meeting in a short but very appropriate address.

Dr. Chadwick was elected secretary *pro tem*.

On motion, the chairman appointed a committee, consisting of Drs. Thomas, Byrne and Parvin, to report a constitution and by-laws for the government of the society.

Dr. Barker entertained the gentlemen present by some remarks in reference to the objects and benefits of the organization until the committee entered with the report. The constitution and by-laws as reported by the committee—after discussion, in which Drs. Barker, Noegerath,

Sims, Parvin, Goodell, Chadwick, and Byford, took part—with very slight modification, were adopted.

A committee was then appointed by the chair to nominate permanent officers.

Drs. Sinclair, Trask, Lusk, Noegerath and Jenks constituted the committee.

The committee retired, and in a short time reported the names of Dr. Fordyce Barker, of New York, for President; Drs. Washington L. Atlee, of Philadelphia, and Wm. H. Byford, of Chicago, for Vice-Presidents; Dr. James R. Chadwick, of Boston, for Secretary; and Dr. Paul F. Mundé, of New York, for Treasurer.

These officers are, ex-officio, members of the council. Drs. J. Marion Sims, of New York; Lyman, of Boston; Goodell, of Philadelphia; and Parvin, of Indianapolis; were nominated as the other members of the council.

The report was adopted. This completed the organization of the society, whereupon the temporary chairman vacated the chair in favor of the president elect.

The future terms of membership are, that the candidate's name shall be presented by some member of the society to the council with an acceptable paper from the former on some subject contemplated in the organization, and ten dollars as the annual contribution. If the report of the council is favorable, and the candidate receives two-thirds of the votes of the members, he shall be declared elected.

The first annual meeting of the society is to take place in New York City, Sept. 13th, 1876, at the rooms of the Academy of Medicine, at which time it will be determined when the regular meetings will be held.

After the adjournment of the society, the council was called together by the president to make arrangements for the first annual session. The council appointed Drs. Mundé, Lyman, Goodell and the secretary to procure papers and make such arrangements as are necessary for the accommodation of the society.

Several papers are already promised, and it is confi-

dently expected that a sufficient number of contributions will be received to make the meeting one of great scientific interest.

Entire unanimity prevailed, and I think we may reasonably expect good results from the harmonious co-operation of the gynecological practitioners of this country.

The profession of New York complain of the effect of hard times upon their cash receipts.

W. H. B.

The following letter has been received from Iowa :

Gents. Mangerers of the Medical Departments.

jents Sir.

I want to know if I can make A Rangements with you to come & visit your Colledge. I have A man that is A live & is all Rite & his Neck is Broken the Boan is cleair Dislocated & is cleair A Peat it does not set one the Rite Place By an Half inch & he cant hold his head up onely By Bracers. it has Ben Broken A Bout 21 years he is the onely man that is liven in the none world that has got his Neck Broken or Dislocated he is A Object of cherity. Which he is the onely Person one Reckord of the kind & I want to find out from yu how meny Studiance yu have their at yu school & I want yu tu see yu Studiants & see how much of A Purce they will give me tu Bring him their How much each caller will give me to bring him their & then he will let any of the mangers Exam his Neck & Explain it to the school Why he lives & how he lives I cant explain it But yu can. he is tolible harty his health is tolible good, at the Preasant time As soon As yu can convenity see the Scollars at school & yu can Asitain what they will Each of them will give A Peace & Board him & my Self for the time that yu all Keep us their I think that 24 Hours will be long A nuff at A Place.

So Pleas let me know your conclucion as Soon as Possible

Reports of Societies.

The Twenty-sixth Annual Meeting of the Illinois State Medical Society was held in the chapel of the Industrial University, Champaign, May 16th, and continued in session three days.

FIRST DAY.

The meeting was called to order by the President, T. D. Washburn, and prayer was offered by Rev. W. G. Pierce, of Champaign, and several pieces of music were performed by the students of the University.

Dr. S. H. Birney, of Urbana, chairman of the committee of arrangements, on behalf of the committee and the citizens of Champaign and Urbana, delivered an address of welcome. Dr. J. M. Gregory, LL.D., Regent of the University, welcomed the Association to the halls, grounds and recitation rooms belonging to the University, and announced several exercises, prepared by various members of the faculty, for the entertainment of the members of the Association.

Dr. J. H. Hollister, of Chicago, replied to these addresses on behalf of the society, after which the society adjourned until afternoon.

AFTERNOON SESSION.

At the opening of the afternoon session, Dr. E. R. Willard, of Wilmington, and Dr. Worrell, of Bloomington, were appointed to serve on the Board of Censors, in place of absentees on that committee.

Dr. Massey read the report of the Committee on Practical Medicine, which elicited a very interesting debate.

Dr. Hill, of Jerseyville, read the report of the Committee on Diseases of Children, which was followed by a discussion in regard to the food for children brought up by hand, and in regard to the treatment of cholera infantum.

The report of Dr. McClelland, on Medical Jurisprudence, was read by the Secretary, Dr. T. D. Fitch.

The society adjourned until Wednesday morning.

The evening was spent in witnessing some fine experiments with the spectroscope, by Prof. Robinson; in seeing Prof. Miles show, by proper illustrative apparatus, the movements of the intercostal muscles in the human subject; and in visiting the Art Gallery, the Library, and other halls of the Industrial University.

SECOND DAY.

The Association re-assembled at 8 o'clock, and Dr. E. S. Hayes read the report on Electrical Therapeutics.

Dr. T. D. Fitch presented his resignation of the office of Permanent Secretary, which was accepted, and a vote of thanks, offered by Dr. Worrell, and passed unanimously, expressed the thanks of the society for the able and faithful manner with which he had discharged the duties of the office, so long held by him, and for the courteous manner with which he had always treated his fellow-members.

On motion of Dr. Hollister, the annual dues of members was fixed at \$3.00, until otherwise ordered by the society.

Dr. F. C. Hotz read a report on Otology.

Dr. Moses Gunn presented the report on Surgery.

A supplementary report on Treatment of Diseases of the Hip-joint, was read by Dr. S. H. Birney.

AFTERNOON.

Dr. Jackson read a report on Gynecology.

Dr. Slater read an abstract of his report on Placenta Prævia.

The Nominating Committee reported in favor of Chicago as the next place of meeting, and reported a full list of officers, of which the following are the more important: For President, T. D. Fitch, Chicago; First Vice-President, S. H. Birney, Urbana; Treasurer, J. H. Hollister, Chicago; Permanent Secretary, N. S. Davis, Chicago.

The report was adopted.

Dr. Albin's report on Necrology was read, and Dr. Ransom read a volunteer paper on Suppositories.

At four o'clock the members of the Association witnessed a military drill of the students of the University, and at five a very interesting series of exercises in calisthenics by the female students of the University, under the direction of Miss Allen. In the evening the Association re-assembled in the chapel of the University to listen to the annual address of the President, and an address by the Regent of the University. Both these reports were ordered published in the Transactions of the Society, and the recommendations of the President in his address were referred to a special committee, consisting of Drs. W. W. Chambers, J. W. Freer and H. Z. Gill. The exercises of the evening were enlivened by music performed by Mr. and Mrs. Baker, and by the reading of several pieces by Miss Bryant.

THURSDAY.

Dr. Sarah Hackett Stevenson, of Chicago, read a report on the Progress of Physiology, the conclusion of which was greeted with applause.

Dr. J. H. Hollister read a volunteer paper on Chylous Urine.

Dr. D. E. Foote read a report on Obstetrics.

Dr. J. H. Hollister, the Treasurer of the Association, submitted his annual report.

The Secretary, Dr. T. D. Fitch, also submitted his annual report.

A communication from Dr. E. W. Gray, of Bloomington, giving reasons why a State Board of Health should be organized in Illinois, was read; also a communication on the same subject from the Jersey County Medical Society.

A series of resolutions, signed by Dr. E. P. Cooke, and adopted by the Woodford County Medical Society, with reference to medical education, was adopted.

Dr. Chambers moved the adoption of a resolution for the appointment of a committee to memorialize the Leg-

islature of Illinois with reference to the passage of a law creating a State Board of Health.

After amendments suggested by Dr. Earle, and accepted by Dr. Chambers, the resolutions, as follows, were adopted :

Resolved, That a committee be appointed to memorialize the next Legislature on the subject of the appointment of a State Board of Health, and that, with proper modification, the act by which the Board of Health of Massachusetts was inaugurated, be submitted to the same, as a basis for the Illinois State Board.

Resolved, That, as members of the State Medical Society, each one shall consider himself bound to urge the propriety of a State Board of Health upon the Representatives from his district.

Dr. J. W. Freer was chosen chairman of the Memorializing Committee.

The Association proceeded to elect delegates to represent the body in the several State Associations of the Northwest, with the following result :

Indiana—Albin, of Neoga, and W. Brinton, of Tuscola.

Wisconsin—D. W. S. Caldwell, of Jo Daviess, and D. E. Foote, of Belvidere.

Missouri—G. W. Jones, Danville, and R. Roscolton, Peoria.

Iowa—S. C. Plumber, Rock Island, and T. D. Fitch, Chicago.

Ohio—S. H. Birney, Urbana, and O. P. Crane, Carbondale.

Michigan—J. H. Hollister and Edmund Andrews, Chicago.

After the adoption of a series of resolutions of thanks to the faculty of the Industrial University and the people of Champaign, the Association adjourned.

Hospitals.

COOK COUNTY HOSPITAL—SURGICAL DEPARTMENT.

SERVICE OF DR. BOGUE.

(Reported by Dr. FENN.)

March 11, 1876. Dr. Bogue presented and made remarks on the following cases :

1. Dislocation of the right shoulder downward ; four weeks standing ; plump German ; aged 45 ; anæsthetized slowly. The operation of reduction was begun in the usual way by placing the heel in the axilla and making traction ; manipulation to cause free movement in the joint. It was not till after extreme and long continued exertion when it seemed that every attempt would fail, that the head of the bone was found to be in place. The arm was put in a sling and a wet compress ordered for the shoulder.

2. Operation for piles. A healthy, well developed young man ; ether given by means of an enameled leather cup open at both ends and made to fit over the nose and mouth, filled with spongiopiline. Ether is thrown on sparingly through an opening in the cap of the bottle ; anæsthesia was produced very slowly.

Dr. B. began the operation by inserting the two index fingers within the rectum. By pulling in opposite directions he dilated the sphincter sufficiently to obtain a fair view of the folds of hypertrophied membrane. Taking hold of these folds with ring forceps he brought them down one at a time, fixed on the clamps and destroyed them with the hot iron ; sweet oil was smeared on the eschar ; a wet compress was ordered, and opium if necessary.

March 14. 1. Crushed hand—loss of fingers. A ragged, dirty boy just brought in from a lumber mill in the vicinity. The remaining fragments of fingers were trimmed up with bone forceps. One slightly bleeding artery was ligated ; oakum and bandage.

2. Necrosis of lower jaw. A little girl six years old. It has continued a year and a half; there is little doubt, therefore, that the necrosed bone is ready for removal. Ether was given. On examination and cutting, it was found that a piece of dead bone lay along the side of the jaw, probably separated for a year but held by thickened tissue; new bone has formed in abundance; dressed with a bit of sponge only to keep clean.

3. Anchylosis of the knee of long standing. Young man; has always gone on a crutch. The attempt is to be made to get the knee into a condition to be of use to him. If there is any motion it is very slight. The deformity from malposition of the head of the tibia and from the position of the leg at right angles to the thigh is considerable.

The preliminary operation will be the boring of the knee both through the head of the tibia and partially through the track of the joint, to induce softening; the object is ultimately to liberate the patella, and, if possible, straighten. After the boring, some tendons were partially divided. All efforts to straighten or to cause motion except in the slightest degree, failed. The knee was packed in oakum and wound with bandage to await results.

March 18. 1. Hydrocele injection. A fair looking young man. Disease began twelve months ago. The scrotum was punctured, fluid drawn off and the sac injected with compound solution of iodine in proportion of fifteen grains of iodine and thirty grains of iodide of potassium to one ounce of water. The application was evidently very painful, especially when the kneading began; fomentations ordered to be applied in a few hours when pain shall have subsided.

2. Ununited fracture of the tibia; injury last December. It has been bored once with no other result than to produce suppuration for a few days; boring a second time. No anæsthetic.

3. Street car injury. Boy 9 years old, just brought

in; lacerated flesh wound of left leg, destroying the greater portion of the muscles of the calf, not opening joints; ligamentum patellæ exposed. The right tarso-phalangeal joint was laid open by a broad wound obliquely across the dorsum of the foot. An attempt was made to approximate the edges of the wound of the leg by a stitch or two in the lower portion. A weak solution of alcohol in water was applied over the wounds and the patient was ordered one grain of quinine three times a day, and milk; the leg to be placed in a sling.

4. Chronic caries of tibia, upper third. A young man apparently healthy. He says he received a charge of shot in his leg twenty years ago; he has been from place to place, and the attempt now to gouge out the decayed bone is only one of a series which have already been made. He will probably never get well.

March 21. 1. Anchylosis of the knee. Bored last week; no signs of inflammation. While ether was being given preparatory to some further trial, Dr. B. remarked concerning the improved method of giving ether, that it was both more economical and safer. The other day when this patient was first put to sleep, but three ounces of ether were used. By the usual way, a pound bottle full would have been consumed; of course the smaller the quantity the safer.

When anæsthesia was complete, the leg was brought over the end of the table, an assistant held the thigh firmly, and Dr. B. attempted to break up the adhesions, using an amount of force that seemed to threaten the popliteal vessels. By repeated attempts at both flexion and extension, the leg was finally carried through an arc of more than 45 degrees. A loud cracking sound greeted the ears of all who were in the room; blood flowed freely from the wounds of the former boring; without doubt it came from the ends of the bone. The patella was freed. He will have to go back now for another period of fomentations and oil silk.

2. Operation for stone. Bohemian; short and fleshy:

over 70 years of age. He has had trouble in making water for a year; great discomfort for the last five months; pain at the completion of the act of making water, which continues for a little time or until the bladder gradually fills. He urinates every hour and passes a little blood, more when up and about than when sitting or lying.

Dr. B. exhibited a Van Buren's sound and showed also the difficulty of always getting positive evidence even where stone exists. He remarked that the operation had been undertaken without finding stone and even without reaching the bladder; he hoped we should be more fortunate. Etherization in this case was very complete, fifteen minutes having been the time required to put him asleep. The operation was begun and not completed till twenty-five minutes more had elapsed; it illustrated the patience and perseverance needed to succeed sometimes where failure is wholly unlooked for. The difficulty was partly owing to an enlarged prostate and unusual depth of perineum. By a pertinacity worthy of success the stone was finally picked off the floor of the bladder with the forceps over the spot where it lay; by an effort at tossing with the tip of the finger in the rectum, the object was seized and brought forth. The stone was a thick disk with symmetrical rounded edges; weight about four drachms.

March 25. Dr. B. remarked of the old man operated on for stone at the last clinic that he was doing well. Urine passed freely by the natural route. At first the circulation was 96, yesterday it was 80, to-day it is less. The only trouble had been the large distension of the bowels with gas; its passage was promoted by injections of salt and water.

1. Necrosis of bones of the index finger. An incised wound of the first phalangeal joint having failed to unite. Amputation.

2. Necrosis of tibia. Considerable dead bone has been removed in former operations; it has nearly all

been cast off; so much new bone has formed that this leg is considerably the larger. The patient having been etherized, elastic bands were applied and the border of the ulcer cut away so as to get at the caries; a sliver of necrosed bone was found and removed; dressed by filling cavity with white wax to keep it open and allow of free discharge.

Dr. B. remarked of the case of caries of the tibia following gunshot wounds presented on the 18th, that the hardness of the bone had heretofore prevented granulations. The medullary cavity was gouged out and the cavity formed by the operation had been frequently washed out and was now granulating very nicely. But to what extent it might fill was uncertain.

3. Injury of the elbow joint. A large boy brought to the hospital yesterday. Considerable swelling. Ether was given. The olecranon was seen to be one side of the middle. The condyles changed their position a little when pressed toward each other. There was a fracture involving the articular surface of the humerus; it extended from the head of the radius upward and inward. Treatment to-day by adhesive straps and pulley, an angular splint not being in readiness.

March 28. 1. Club-foot operation. Babe. Deformity double; the left foot operated on some time ago. To-day the division of the affected tendons of the right. No anæsthetic. The little one's cries during the moment required to complete the operation, eloquently appealed in behalf of chloroform. The wound of the operation will be left to heal, then adhesive plaster to straighten.

2. Abscess of the knee—amputation. An emaciated cachectic youth; inflammation began one month ago about the left knee; abscess burrowing in both directions to the ankle and groin followed. The burrowing has ceased, but he is not improving; it is proposed now to examine, and if necessary, condemn the leg. The pus appears fair, but is very offensive—evidently coming from bone. The head of the tibia is drawn backward

and outward. It was found that there was destruction of the synovial membrane and common destruction of cartilage to a greater or less extent. It would never get well. Every preparation having been made, the leg was elevated, and while in this position, the rubber band was wrapped around the thigh; the elastic roller was not applied on account of the condition of the knee. Amputation was performed at the lower third. Dr. B. remarked that he should tie all slightly bleeding vessels, for tissues infiltrated like these do not allow of contraction like healthy tissue.

3. Varicose veins—compression. The swellings were on the right leg about the knee; several pins were passed beneath the veins involved and wrapped as in hare-lip sutures; he is to go to bed and be let alone; if inflammation should occur, hot water.

4. Anchylosis of the knee. (April 14 and 21.) There was a good deal of soreness after the last operation but not after the first. The limb is affected now by muscular twitching and starting in his sleep. It is proposed to-day to produce extensive division of tendons behind, and to make another effort at straightening; no more pain or discomfort is apprehended than we have already had. On the completion of the first part of the operation the punctures returned venous blood quite freely. In the last part of the operation, Dr. B. applied his full strength; the angle of flexion was but very slightly increased. The trial was continued until further effort seemed futile. It is still questionable if he will have any real improvement of the leg—still the attempt has been made.

Book Reviews.

[NOTE. — All works reviewed in the pages of the CHICAGO MEDICAL JOURNAL AND EXAMINER may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

AN ELEMENTARY TREATISE ON DISEASES OF THE SKIN. By *Henry G. Piffard, M.D.*, Professor of Dermatology in the University Medical College. New York and London: McMillan & Co. 1876.

The appearance of a work on Diseases of the Skin written by an American author, even though elementary in scope, may be considered to be an important and significant event in our literature. Perhaps more than any branch of medicine has the one relating to cutaneous pathology and therapeutics been neglected in this country until within a few years past, so that it must be confessed that ten years ago there were few, if any, men capable of writing a systematic treatise on the subject. But within ten years great strides have been made by a goodly number of physicians, chiefly among the younger men, who have studied these affections with a zeal, catholicity and success which has placed them in a favorable light among those recognized abroad as masters in this branch. Indeed, as Americans, we can now proudly claim that our studies and observations on these diseases have been recognized and appreciated in other countries, whose observers are disposed now to look for and avail themselves of the results of our scientific progress in skin diseases, rather than, as in the past, to ignore us, or treat our efforts with slight.

The results of our advance have thus far only been, as we may say, fragmentary, being in the shape of monographs, clinical studies and statistical reports, no one having until now attempted a more or less complete description of the whole subject; yet, though contributions to separate departments of cutaneous medicine, many of

them have been of much importance, and it might be well inferred that their authors were fully able to discuss as a whole, that which they only attempted at that time in part. These general ideas occur to us as we take up this excellent little work by Dr. Piffard, an observer who has been a prominent member of the little band which has caused American dermatology to take an honorable stand as a special department of medicine. To those who have read his valuable contributions in the various journals, to those again who have listened to his teaching, and again to those who have watched his painstaking unprejudiced course in the study of dermatology, both clinically and histologically, the fact will be very striking, that in the present instance, a book has been written by a man eminently fitted for the duty. His fugitive essays have shown marked powers of observation and a capacity for the proper generalization and induction from the facts of others—qualities essential to success particularly in such affections as those of the integument. Then, again, owing to the richness of our clinical resources, the author has had an ample field from which to gather his facts. With these general remarks we will now consider the work.

Proceeding to a special consideration of the various subjects of the treatise, we come, first, to the chapter on the anatomy of the skin. Here at the outset, the reader will be favorably impressed with the peculiar characters of the work, namely, conciseness and directness of statement, together with simplicity and clearness of description. We know of no work, certainly none on cutaneous diseases, thus far published, which contains so clear and terse a description of the anatomy of the skin as does the work under consideration. Complex as the structure of this membrane is, and difficult of description within reasonable limits, we find it here presented in a most admirable manner. Another feature of great importance presents itself, one which is observed throughout the entire volume, namely, that of

original research, as well as a great familiarity with and judicious employment of the results obtained by others. It is evident that the author has thoroughly familiarized himself with all the various opinions of observers upon the anatomy of the skin, and that he has come to his own conclusions with their aid as well as that of practical study. The whole chapter then can be commended as simple, thorough, and graphic in description.

The illustrations of the structure of the skin and of its appendages are ample in number and apposite in purpose, and much material benefit will be derived from a thorough mastery of the chapter. Following a short and good chapter on the physiology of the skin, we come to that on its pathology, in which the various lesions are described in a terse and simple manner and illustrated by diagrams, which, from their clearness will undoubtedly prove a great help to the student.

The chapter on symptomatology, though containing nothing striking or new, is very satisfactory, and is followed by that on diagnosis, which is, to say the least, excellent in several particulars, as will appear by a short quotation. The author says :

The importance of correct diagnosis in affections of the skin cannot be overestimated; its difficulties, however, have been ; and it is the dread of the supposed intricacies connected with this part of the subject, which deters so many students from embracing the opportunities now afforded them in most of the medical schools of this country. This same feeling, I regret, influences not a few general practitioners, and induces the belief that a useful degree of familiarity with these affections can only be obtained by a prolonged special attention to the subject. I believe that these difficulties have been greatly overrated, and that the student or practitioner who gives a fair proportionate amount of study to this department, will be likely to make fewer incorrect diagnoses than in most of those other branches, with which he feels it his duty to become familiar. Most of the elements upon which a diagnosis in dermatology is to be based, are directly under the eye, while in thoracic, abdominal and pelvic diseases, and in affections of the nervous system, these elements must be sought in deeper recesses, by the aid of physical exploration, or by a most

careful analytical study of symptoms, or both. Cutaneous diseases, then, should *prima facie* be easier of diagnosis than others, and in the great majority of instances this is the case. By diagnosis in this connection, I mean the appropriate and correct naming of the affections under consideration.

The author then details the elements of diagnosis, and the sources of information leading thereto, in a manner satisfactory to those already possessing a knowledge of skin diseases and reassuring to those commencing their studies. Besides this, he describes the various appliances auxiliary to diagnosis and their methods of use, thus constituting a noticeable section of his work, one which of all others deserves the attention it has received.

This naturally brings us to the vexed question of classification, and in the chapter devoted to its study we find a succinct description of the merits of the principal one, heretofore used, a consideration of which we cannot enter into here. Suffice it to say, that Dr. Piffard thinks there is room for still another, which, as its basis, depends on the acceptance of the doctrine of certain diatheses as a cause of skin diseases. He divides these diseases into five groups:

- I. Diathetic affections.
- II. General non-diathetic affections.
- III. Reflex affections.
- IV. Local affections.
- V. Affections of uncertain nature.

He then places the various affections under these heads, of which we cannot here give the full list, and shall merely allude to a few as being more important. By this division, syphilides of course are placed in the diathetic group, and with them are classed the various forms of lupus, which the author, following the French school, and notably Hardy, calls *scrofulides*. In this connection, we meet with a new name for what has been familiar to us in the writings of the French as the *dartrous*, *herpetic* or *arthritic diathesis*, namely, "the *rheumatic diathesis*," under which pathological head we find *eczema*,

psoriasis and pityriasis. Leprosy is also classed as a diathetic affection, in which class we are somewhat surprised to find ichthyosis.

We need say little here of the general non-diathetic affections other than that the group includes principally the eruptive fevers, erysipelas, glanders, etc. Acne is not considered by the author, as by some, a diathetic affection, but rather one of reflex origin, in which group, also, we find rosacea, urticaria, zoster, herpes, and some chloasmata.

Parasitic and non-parasitic affections call for little mention here. The fifth division comprises affections of uncertain nature, which, from its containing such a number of dissimilar troubles is disappointing, and while it shows a weak side of the classification proposed, its perusal carries with it the conviction that a perfect classification of skin diseases is an utter impossibility, at least in the present stage of our knowledge. There are so many points to be considered further on in the book that we refrain here from further criticism of this chapter. It shows great study and care on the part of the author and a laudable desire for simplicity; and its acceptance or rejection by the reader will largely depend upon his views as to the various diatheses claimed. Of course to a student of the German school it will appear as eminently absurd; and again, there are points upon which even those who admit diatheses will differ. Our own convictions are such, that we can not unreservedly accept Piffard's classification, still, in a practical point of view it must be confessed that the existence of such is not an absolute essential to a thorough knowledge of these affections, and is useful mostly in giving order and symmetry to the book.

Thus far we have considered what may be called the elementary section, which is comprised in fifty-seven pages, to which fact we call attention, as showing what a mass of knowledge is comprised in so short a space. Turning to the descriptive part we find the chapter

on syphilides to be excellent. We commend the skill of the author in presenting this difficult subject so tersely and clearly, and would gladly call attention to several important features. The lesions are described in a graphic manner, and their division is simple and easy of understanding. We are pleased to see the positive statement of the opinions of the author, regarding the necessity of mercury in syphilis, though we must differ from him in attributing to the iodide of potassium greater therapeutic effect than he does. As the author's views upon lupus have already been published, we refrain from comment upon them here; it must in justice to him be added, that this chapter bears the impress of long and patient study, clinically and microscopically. His observations are of great value, and the pronounced views arrived at deserve more than usual attention. Indeed we may well add here, what will be necessary otherwise to often repeat, that the microscopic studies are all carefully made, and that the author has not blindly accepted the work of others, but has, on the contrary, seen most of the appearances described himself. To such a degree is this carried, that the part of this work devoted to microscopy is almost equal to that part in Neumann's great work; but the treatise of Piffard has this great and to us pressing advantage, that clinical features are most clearly brought out, and the microscope is only introduced as an aid to the study of this all important branch. Here we think that the author has shown great judgment, and instead of having written, as did Neumann really, a hand-book of the morbid anatomy of the skin, he has written a thorough clinical treatise in small compass, and has introduced microscopic anatomy only where it will act as an aid and a supplementary study.

In short, we think that one of the most praiseworthy features of this book is the amount of really good original work in cutaneous histology and pathology which it contains, and that another advantage of it is, that this feature has not received undue precedence, to

the exclusion of clinical description. In the latter field the author has shown himself a thorough master of his subject, one who has studied minutely and carefully the metamorphoses of the cutaneous lesions. The result is evident, as the clinical descriptions are really excellent in several particulars, namely, terse in statement and graphic in detail, conveying an accurate idea of the lesions as they occur.

Next to clinical description, of course comes treatment, and here again, we have only praise to add. The directions are simple, clear and precise, and the remedies and methods of treatment are, while fully given, much more intelligibly brought out than is usual in books on skin diseases. The few remedies are stated, with directions for their use, and the impression left on the mind is that of certainty, rather than uncertainty. This remark applies to all affections, hence, the matter need not be mentioned again.

We come now to the really cardinal point of the work, namely, its advocacy of a certain diathesis as underlying and causing the various and by far greater number of skin diseases. Whatever may be one's views, no person can read this work without becoming convinced that the author has arrived at his opinions, only after patient investigation of the whole question. He considers the views of the authors who have written on the subject previously, and finally accepts as the underlying cause of the diathesis, which for certain reasons he thinks should be called rheumatic rather than dartsous, arthritic or herpetic, a condition of malassimilation or suboxidation, as claimed chiefly by Bence Jones.

This certainly must be said, that the author is not content simply with assuming a diathesis, but that he endeavors to show in what it consists. Much care is shown in the management of this part of the subject, and one reads with interest the remarks of the author on the diathesis itself, and also on its general manifestations.

Eczema and psoriasis are treated of at length, and we may here add that the directions for treatment are simple and practical; indeed, in keeping with the therapeutics of the whole book; they are in the main better, for the reasons given, than in many works which occur to us.

The limits of this review prevent us from calling attention to even a tithe of the interesting features found in the work. On every page we find food for thought and criticism, and can only now refer very briefly to a few.

The chapters on parasitic diseases are excellent, particularly the one on alopecia areata, and in their study, as in other affections, it is evident that the author has worked hard at the clinic and at the microscope. The chapters on keloid, elephantiasis, xanthoma and fibroma molluscum are, as usual, excellent, and in a short space give a clear idea of the present state of our knowledge. This same remark applies to the author's treatment of that curious affection, molluscum contagiosum, in which the latest views are given, criticised and accepted, after personal investigation.

Those interested in the question respecting the similar nature of lichen planus and lichen ruber, will read with interest the author's views, and in the description of them the student will find accurate details.

Such then, is a hasty criticism of a book of much originality; indeed, few volumes have come under our notice in which we have found evidence of so much thorough original work as in this one by Prof. Piffard. For the student, it will prove of great benefit, and we can fully commend it, as it presents the subject of skin diseases uninvested with any obscurity. On the contrary, it presents the necessary knowledge in a plain, simple and eminently clear manner. For the practitioner, it offers the advantages of a clear, concise summary of our present knowledge, which from its directness and terseness of statement will prove a benefit when consulted. The illustrations of pathological growths are for the most

part original and excellent, while those showing the anatomy of the skin are duplicates of those from Sappey's celebrated Anatomy, and are perhaps the best ever seen.

The general appearance of the work is strikingly neat, and the type is a marvel of clearness. Finally, we must add that the work reflects great credit upon its author and also upon American dermatological literature. It shows that its author is an ardent student of his subject, and that he is both a careful observer and a cautious thinker.

INSANITY IN ITS MEDICO-LEGAL RELATIONS. By *A. C. Cowperthwait, A.M., M.D.* Philadelphia: J. M. Stoddart & Co. 1876.

This is a monograph in which the author has endeavored to discuss the pathology, classification and diagnosis of insanity, the criminal responsibility of the insane, epileptic insanity, and the treatment of the insane, with an introduction and an index all in the small compass of eighty octavo pages. His first proposition, "that he does not flatter himself that he is bringing forward any strikingly new or original ideas in regard to insanity," we indorse, and are moreover of the opinion that neither in the selections from, nor comments on, his authors has he established the claim that his book contains "the essential facts relating to the pathology and diagnosis and the legal relations of insanity, which should be familiar to every physician, and the knowledge of which is of absolute necessity to him when called upon to testify in courts of justice." We agree with him that the profession at large should pay much more attention than they do to insanity in both its medical and legal relations, not only on account of the increasing prevalence of mental diseases, but also because of the growing tendency to shield under its protection crimes of great enormity; but we doubt very much whether "the wide spread professional apathy and ignorance concerning it" will be much

relieved by his contribution to the literature of the subject.

The introduction contains ten rules for the guidance of the physician when called upon to testify as a medical expert. The sixth rule is, "he should not allow himself to be drawn out into giving any opinion on any supposed or imaginary case." If by this he means that the expert should refuse to express an opinion on a hypothetical case, then he shows himself unfamiliar with the rule of practice in many courts.

The second chapter is devoted to the pathology of insanity. Here he quotes extensively from Ray, Maudsley and Schroeder van der Kolk, and enunciates the truism that "diseased mental action is always the product of a diseased brain."

Our author adopts the classification proposed by Dr. Hammond and based upon the division of the mind into the elementary forces of perception, intellect, emotion and will, giving four elementary forms, perceptual, intellectual, emotional and volitional insanity, to which are added mania, characterized by the union of two or more of these forms, general paralysis, idiocy and dementia. We fail to see in what respect this classification is any better than the one proposed by Esquirol thirty years ago.

The fourth chapter is devoted to diagnosis. Here our author justly remarks, "there is no class of diseases so various in their manifestations as those known under the general term of insanity, and their diagnosis is often established with the utmost difficulty," and that "it is only by a practical knowledge gained by experience in the various forms and phases of insanity that this most difficult task is to be accomplished." He moreover tells us that "each individual case must be studied by itself, and nothing but experience and a thorough comprehension of the peculiarities of diseased mental action will prove unfaltering aids."

The next chapter is devoted to criminal responsibility. Upon this important question he makes the following sage remarks: "Should there be a single reason leading to the commission of crime, which is to our perception the offspring of insanity, even though to every appearance the mind is otherwise sound, yet this single delusion or whatever it may be, renders the conscience imperfect, and we are left to decide by the best methods at our command as to the extent of the perversion of the mental faculties by disease, and as to how far the apparently sane faculties sympathize with and are weakened and overcome by those faculties which we know to be diseased. This extremely difficult task is not to be accomplished by establishing any criterion of right or wrong or of legal responsibility of any nature whatever. It must in each individual case be made by the direct examination of scientific men who have studied insanity as a disease and not as a legal problem," and furthermore, "we can not delve within the insane mind and follow its incoherent workings without first becoming insane ourselves, for in this way only could we understand and appreciate its insane reasonings." The practice of common sense and equity and a due consideration of these propositions by the courts would rid the subject of the medico-legal relations of insanity of much of the difficulty that now surrounds it. Our author justly and severely criticises Dr. Hammond for the remarkable positions he has assumed in several cases of public interest.

The next chapter is devoted to epileptic insanity. In this he first briefly notes the symptomatic course of epilepsy, and then enters upon a short discussion of its legal relations. He very correctly states, "that in many instances the epileptic is never fully responsible; a temporary mental derangement being liable to occur subsequent to any mental excitement from fear, anger or any strong moral emotion, and during which a criminal act might be committed." Calling attention to the fact

that the epileptic is ever liable to destructive impulses, he justly remarks that "in cases of crime where premeditation and intelligible motives have been absent and unnecessary violence and ferocity used in execution, and especially when in connection with these circumstances there seems to be a partial or complete loss of memory of the act itself, in such cases, the fact of epilepsy being proven, none ought, for a moment, to question the individual's irresponsibility."

The seventh and last chapter is devoted to treatment, and here our author does great injustice to our American Hospitals for the Insane, and gives evidence that notwithstanding "his somewhat extended experience" he is quite unfamiliar with the general principles that govern, and the general results that have been reached in these institutions. This is particularly the case when he makes the remarkable statements that "the practical result of the plans now in operation for the treatment of the insane are in many respects prejudicial to the true interests of the unfortunate sufferers. The crowding together of large numbers of insane persons, of different forms and shades of disease, under one roof, and restraining them there as prisoners behind bolts and bars, to say nothing of the more or less constant cruelty of ignorant and inhuman keepers and attendants, cannot fail to deepen the seeds of disease rather than to bring about a natural and healthy condition of the mental functions." Such expressions cannot be too strongly deprecated, for they not only convey erroneous impressions of the principles that govern the management of our hospitals, but are well calculated to deter friends of the insane from promptly availing themselves of hospital treatment that is frequently so essential to recovery.

Our author proposes that the majority of the cases now in hospital be disposed of by boarding them "two or three together in private and responsible families,"—an arrangement that must appear to almost every one, certainly to all who have had much practical experience

in the management of the insane, as very undesirable and quite impracticable. Our author also recommends the adoption, in lieu of our hospitals, of the colony plan of treatment that has been followed at Gheel, in Belgium, for several centuries. This we cannot indorse, because, we do not admit that the plan is successful there, and if successful there, that would be no reason why it would be successful here. The European peasant and the American citizen are entirely different people, and the general character of their insanity is as different as are their other characteristics. If space permitted, we could make other objections to this chapter.

D. R. B.

THE ODORLESS WATER CLOSET. A Description of a New Method of Disposing of Sewer Gases. By *R. D. O. Smith*, Washington, D. C. 12 pp., 36 illustrations.

This pamphlet contains a description of a new method of securing perfect ventilation of water closets and soil pipes, which physicians must pronounce the most valuable addition of the age to the sanitary arrangements of modern dwellings. During the past year the medical journals from all parts of this country have contained leading articles on the various diseases arising from sewer gases. In the first week of February, 1876, two of the leading journals of the country, *The Canada Lancet* and *The Medical and Surg. Reporter*, of Philadelphia, started this subject anew. No one is so painfully aware of the prevalence of sewer poison diseases, especially typhoid fever, pneumonia, diphtheria, and infantile diseases, as cosmopolitan physicians of to-day; the object of this notice is to call the attention of just such physicians to the idea contained in this pamphlet.

From the main sewer in the street, a set of tile is laid to the dwelling, and under it, usually to the catch basin. Running perpendicularly from this dwelling sewer to the upper story of the building is the soil pipe. From the sewer main to the top of the soil pipe, there is usually interposed no barrier to the rapid ascent of the extremely

light sewer gases. In all water closets heretofore used, water-sealed traps have been relied upon to prevent the escape of sewer gases into the dwelling. But every observer knows that the closets are never free from more or less bad smell. Drs. Fergus and Gleeson, of Glasgow, have recently furnished the explanation of this ever-present smell. According to their carefully repeated experiments the conclusion was reached that sewer gases are transmitted THROUGH the water in a trap in times varying from fifteen minutes to four hours. (*The Sanitary Record*, Dec. 18, 1875, p. 429.)

These gases are never absent from the soil pipe, and their unceasing endeavor is to escape into the dwelling. The idea of the present style of water closets seems to be to force the gases down the soil pipe by dumping a certain amount of water into the trap, and squeezing them out, as it were, into the main sewer. A more absurd method of avoiding the invasion of houses by this deadly foe could not exist. Mr. Smith's pamphlet describes a new departure; instead of *suppressing* or *confining* the foul gases, a free escape is provided for them, and they are conveyed to the top of the dwelling. The escape consists of a pipe leading from the closet to an up-take flue or a chimney. The bowl or receiver of the closet is conical shaped with the apex downwards, and a simple physical law is thus utilized in concentrating the air current and precipitating it into a torrent of sewer gases rising into the ventilator from their own levity. In this way there is a constant draught *down into* the closet, thence through the ventilating shaft to the roof, instead of *up out of* the closet into the dwelling. The advantages of this simple application of physics to the sanitary condition of houses are simply incalculable. This closet can be applied to any place where needed, as residences, hotels, schools, hospitals, prisons, etc. The principle involved in this new idea can be applied to urinals, waste pipes, wash bowls, bath and wash tubs, man holes, sinks and gullies. A movable, odorless commode, connectable

with a chimney by means of a flexible tube or a tin tube, can be used in every sick room.

The writer of this brief notice has seen the odorless closet, urinal and commode, and can testify to the absolute absence of any fecal or urinal odor where they are used. The two former were seen in a place where every traveler can safely say he is usually half strangled by excrementitious stinks before he has half completed his orisons to Cloacinus, viz., in a passenger coach closet; there the air was actually far purer than in the body of the car. A personal inspection of a tenement building in Chicago supplied with this closet, known to the writer, will convince any one of the complete lack of sewer odor about the whole structure.

THE PATHOLOGY AND TREATMENT OF CHILDBED. By *Dr. F. Winckel*; formerly Professor and Director of the Gynecological Clinic of the University of Rostock. Translated from the German, by *Jas. R. Chadwick, M.D.*, Clinical Lecturer on Diseases of Women, Harvard University. 484 pp. Philadelphia: H. C. Lea. 1876. \$4.00.

Until within three years, no book has appeared in our language devoted exclusively to the diseases of the puerperal state. During this time, however, the ground has been well occupied by the work of our own countryman, Barker. In view of the fact that the mass of the profession are general practitioners, who are greatly interested in the disorders of childbed, it is not a matter of surprise that the usefulness of another book should be recognized. In the work before us, which we have anticipated with some pleasure, since its announcement more than a year since, there is but little which supersedes the book already alluded to in the field, but much which is confirmatory of, and supplementary to, the teachings of the latter. We learn from the author's preface to the first edition, that the book was first given to the world in 1866; and we might have sooner expected its appearance in English, in this day of numerous translations, for the observations of a man of extended opportunities,

like the author's, are always valuable to a great number. In the present instance, a careful study of the book can not fail of being profitable; at the same time, it seems to us, it will do much to elucidate and harmonize many theories of puerperal diseases which are, unfortunately, now vague and discordant.

We have been much interested in the subject matter of the entire book. Besides other topics, we noted especially the author's views of childbed in general: "That childbed exhibits no special conditions" normally, and "that all attempts to demonstrate such conditions must prove futile." This is especially interesting in view of the fact that the majority of English observers have always laid so much stress upon the so-called peculiar condition of a woman in childbed; a condition which favors the occurrence of puerperal disorders in general, and so-called puerperal fever in particular.

Venesection in puerperal diseases has received the attention which the importance of the subject requires. The blood of the pregnant and parturient woman is deficient in the red corpuscular elements, at the same time there is an excess in water, fibrin and white corpuscles. The effect of a general bleeding is to induce just such a condition of the blood, or to aggravate that condition if it already exists. Moreover, venesection is of little efficacy in fever, since it lowers the temperature but a degree or a degree and a half. On the whole, the result of venesection is a speedier loss of strength, and a greater mortality. The effects of local abstractions of blood are often efficient, on the other hand. But in peritoneal inflammation even the latter are best superseded by bags of ice, which should fit the belly like a hood, and which he has never seen freeze the abdominal walls, "even after a week's uninterrupted use" of them.

On page 194, the author says of the use of ice in the treatment of peritoneal inflammation: "As to the use of ice-bags, which I have often employed with women in childbed for more than fourteen days consecutively, and

always resort to immediately for all severe pain in the abdomen, when ice is easy to be had, I can only corroborate the statements of Béhier ; I have never seen unfortunate results in my cases, such as diminution of the lochia and lacteal secretion, or affections of the skin, especially gangrene."

The author's consideration of the subject of inversion of the uterus is, at best, incomplete ; no mention being made of Thomas's operation. In this connection it is noticeable that, in the extended bibliography of the author, there is by no means as frequent reference to American literature as in the book of his countryman, Shroeder, who has not overlooked the fact that American gynecologists are really advanced in the science.

We were especially interested in the account of the etiology of so-called puerperal fever, which we believe the most intelligent we have ever read. We infer that the author does not accept a specific disease which can be called puerperal. The affections which may be known as puerperal fever are numerous ; they are usually phlegmasias with the most varied pathology. For clearness, "we must first draw a clear distinction between the first cases of an epidemic and the so-called puerperal fever epidemics." "The following have been demonstrated to comprise some of the causes of the affection : (A) In the first place *wounds* and *contusions* of the external and internal genital organs may be succeeded by such inflammations. * * * (B) The *decomposition* of retained portions of the membranes and placenta within the uterus, may also unquestionably evoke all the forms of septic puerperal affections that have been mentioned. * * * (C) Primary inflammations of the vagina and uterus, or gonorrhœa of the genital organs, may become exacerbated in lying-in women to such an extent as to amount to an acute parenchymatous inflammation. * * (D) Finally, it is an established fact, that the most serious puerperal disease may be caused in private practice as well as in hospitals, by the infection of wounded

portions of the genital organs with cadaveric matter, or with the secretions of sloughing, or phagedenic wounds." Concerning the beginning of epidemics, the author says: "I have come to the conclusion that puerperal fever originates as an epidemic in lying-in establishments, by means of a direct transfer of the infectious (purulent, putrid or diphtheritic) matter from one puerperal woman to another." Especial attention is called to the fact that the epidemics of puerperal fever, outside of maternities, have been almost exclusively confined to the practice of one man or one midwife.

It may be of interest to the student who desires to keep abreast the fashions in pathology, to know that the disease formerly known as putrescentia uteri, and latterly, metrolymphangitis, is now called diphtheritic inflammation of the uterus and vagina, with thrombosis of the lymphatics and diffuse phlegmon. Alas! the mortality remains the same with all the improvements in nomenclature.

The author does not accept a "milk fever," but refers the elevated temperature which sometimes coincides with the flow of milk, to traumatism or to some phlegmasia.

A feature which enhances the value of the book, is the record of numerous cases interspersed throughout to illustrate the text. In some instances, we fail to see how the conclusions of the writer are warranted by the cases. Thus, on page 328, *et seq.*, a case is reported of death from so-called puerperal fever, metritis phlegmonodes, parametritis, peritonitis, in private practice. Of it he says: "*This case is consequently a proof that in private practice and remote from lying-in establishments, without infection and without miasma, the most severe forms of the septic diseases may occur sporadically in childbed.*" From a careful reading of the record one could hardly conclude that sepsis existed. Moreover, the author himself admits—"there was absolutely no reason for supposing that there was any infection or contagion; much less could a miasmatic origin be suspected. It is, on the

whole, most probable, from the early escape of the waters, the long irritation of the cervix, the extraordinary effort made by the uterus to drive the large child into the contracted pelvis, that a metritis with parametritis was set up, and that this caused the peritonitis." On page 201, the case entitled, phlegmonous metritis, paranephritis, peritonitis, pleuritis, pericarditis, continued fever, would, we think, be accepted as an instance of puerperal septicæmia.

An almost universal omission in the records of the cases is the fact of the married or unmarried state of the patient. In most instances perhaps this is not of great importance; but in record No. 47, the omission is a serious one. It may be briefly stated that the writer has reported three distinct forms of mania to which the pregnant and parturient woman is subject: (A) symptomatic mania, accompanying a phlegmasia; (B) mania persecutoria puerperalis; (C) idiopathic puerperal mania. The case alluded to is of the second variety. The subject was 37 years old, of healthy family. When a mere child she received a blow upon the forehead from a flail, not severe enough to destroy consciousness. Her menses appeared at the age of twenty-one; at this time she had a single epileptic attack but never subsequently. She feared her father, who was unkind to her. Becoming pregnant she applied to the Lying-in to make provision for her confinement. During pregnancy her health was good, though at times she was morose. When in labor, she attempted to strangle herself with a towel. The foetus, dead born, was extracted with the forceps. Post partum, she had puerperal ulcers and endometritis, which grew better under treatment. Gradually, mental derangement became developed, *high fever*, and she soon became the subject of hallucination. Subsequently, abusive and blasphemous language at night. The subject was soon lost sight of, being handed over to the police authorities.

One naturally asks, was this the victim of seduction,

and the mother of an illegitimate child? Could her moroseness and attempt at suicide be explained by mortification? In other words, was this not, after all, an instance of true puerperal mania. Writers, especially Barker, have called attention to the fact that seduced and shamed women are the especial subjects of mania puerperalis. Did this woman ultimately recover? The writer places great stress upon the fact of the blow upon the forehead, received many years before, and says that a recovery could not be expected under the circumstances by which the subject was predisposed to brain trouble. There is absolutely no evidence of such predisposition. It is to be regretted that a case so incomplete in detail should be cited in illustration.

In the therapeusis of puerperal mania, it is a little remarkable that the author does not even mention the use of hydrate of chloral.

The translator has done his work so well, that, except for the proper names, we should be but seldom reminded that we were not reading an English book. The centigrade temperature markings have been converted into the Fahrenheit scale. The decimal system of weights and measures has been retained.

Once the meaning of the text was not clear; on page 102, the first two lines of the last paragraph, under the head of anteflexion and anteversion: — “The vaginal portion is generally pushed backwards, and points towards the sacrum *when the os uteri is inclined forwards.*”

The typographical errors are fewer than is usual in books of this size. On page 224 “mycenium” evidently should be written mycelium. In the last record of the case on page 276, “P. M.” should read A. M.

The clear type and general mechanical execution of the book are a source of real pleasure to the reader.

E. W. S.

DETERMINATION OF THE REFRACTION OF THE EYE BY MEANS OF THE OPHTHALMOSCOPE. By *Edward G. Loring, M.D.*, New York. From advance sheets On the Ophthalmoscope. Wm. Wood & Co., New York. 1876. Price, 50 cts.

The perusal of this pamphlet of sixty pages will be a pleasant and useful study for every physician interested in ophthalmic practice. Judging from these advance sheets we believe the whole work promises to be a very valuable addition to American medical literature.

BOOKS RECEIVED.

REPORT of the State Board of Health of Michigan for 1875.

THE SURGERY, SURGICAL PATHOLOGY AND SURGICAL ANATOMY OF THE FEMALE PELVIC ORGANS, in a series of colored plates taken from nature, with Commentaries, Notes and Cases. By *Henry Savage, M.D.* London. Third edition. Philadelphia: Lindsay & Blakiston. 1876.

TRANSACTIONS of the New York State Eclectic Medical Society for 1875.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By *T. Henry Green, M.D.*, etc. Second American edition.

DE LA VALEUR DE L'HYSTEROTOMIE DANS LE TRAITEMENT DES TUMEURS DE L'UTERUS. Par Le *Dr. S. Pozzi*. Paris.

PAMPHLETS RECEIVED.

TRANSACTIONS of the State Medical Society of Kansas, 1875-6.

Nos. 2 and 3, of vol. II, of "AMERICAN CLINICAL LECTURES." On Certain Forms of Morbid Nervous Sensibility. By *J. S. Jewell, M.D.*, etc.

THE TREATMENT OF MILD CASES OF MELANCHOLIA AT HOME. By *E. C. Seguin, M.D.*, etc.

WARM AND HOT WATER IN SURGERY. A short Historical Sketch, with the present most approved Methods of Application, with Cases. By *Frederick E. Hyde, M.D.*

ON SOME SPECIAL AFFECTIONS OF THE OESOPHAGUS. By *Frederick N. Godon, A.B., M.D.*

HYDRODIPSIA AND THE WATER SUPPLY OF LIVING BODIES. By *Z. Collins McElroy, M.D.*

Translations.

THE ACTION OF OBSTETRICAL FORCEPS.*

(From the French of Prof. E. Hubert.)

By FRED. J. HUSE, M.D.

Few surgical instruments are called into requisition so frequently as the forceps ; few are so imperfectly understood in regard to method of action. The *iron hands* of J. Palfyn have been subjected to innumerable modifications in their mode of union, in length and form of handle, in amount of concavity, and shape of tip. Every obstetrician has been eager to effect an alteration by some addition or change, but the greater proportion of these modifications have been made at hazard, and more frequently as experiments than as the expressions of an established theory. "When one fails to understand the use of old forceps," said Velpeau, "he invents new." As the result, though progress may be trifling, instrument makers thrive.

In order to throw light upon the manner in which forceps may be brought to a condition of perfection, it is pre-eminently essential that the effort should be made with a full understanding of what may reasonably be expected of them. When this point has been definitely determined, science will have taken a long step in advance ; the purpose once indicated, its mode of fulfillment is easily established, and the completion of the instrument may be left to the artisan. But the disagreement which exists among the schools shows that this step has never been taken. Contrary purposes are still proposed, and what some consider progress seems to others recoil. This results from the notions, that to produce general satisfaction a single instrument ought to fulfill,

* *Archives de Tocologie des Maladies des Femmes et des Enfants Nouveaux-nés.* March, 1876.

equally happily, indications which are diametrically opposed; and at one time grasp the head without compressing it, at another compress it, in order to reduce it, in the act of grasping. These conditions can hardly be combined without much difficulty, and we do not propose to tarry in such a search, preferring rather to adopt the use of two forceps of different type, a *tractive* forceps and a *compressive* forceps, each adapted to conditions and requirements entirely distinct.

In 1860, my father carefully investigated the method of using forceps as a means of traction.* For myself, I propose to sum up his teachings in a few words, and then, placing myself upon another stand-point, examine the instrument as a means of reduction.

I.

The following propositions were demonstrated by my father by calculus:

1st. Traction in the direction of the axis of the canal are entirely utilized.

2d. Traction perpendicular to this axis are entirely expended in producing compression.

3d. Oblique traction is resolved into extractive, useful force, and compressive or injurious force. The useful force is diminished and the injurious force increased in proportion as the direction of traction is removed from the centre of the head; as the head deviates from the pelvic axis; and according as the forceps are grasped further from the joint.

Though excellent in the inferior strait, where the traction can be directly opposed to the resistance, the forceps become of less value at the superior strait, because their action is no longer *in* the direction of the axis, being, at most, only *parallel* to it. As a boat drawn by a tow-line is immediately dragged against the bank unless the rudder, so turned as to produce a strong resistance on the part of the water, serves to maintain its axis in the axis of the canal; so in the pelvis the anterior wall may be compared to the rudder, in presenting that resistance which maintains the head in the central line of the resistance of the pelvis, despite the defect of traction.

Now, as we have already indicated, this resistance may be resolved into compression and the neutralization of force. In order to avoid bruising of tissue and loss of

* Memoires de l'Académie Royale de Med. de Belgique, tome IV, 1860.

force, my father caused forceps to be made in the form of the letter S, thus rendering possible the most exact prolongation of the direction of strain in the axis of the superior strait. A more simple means of accomplishing the same result consists in perforating the handles of ordinary forceps with two holes near the joint, and adjusting an iron stock to the instrument by means of a couple of fids.

Still another method of giving the most serviceable direction to tractions consists in rendering the handles of the instrument stable with one hand and applying the force at the joint; thus it is changed into a powerful lever, and its blades are caused to describe a curve which, like the axis of the strait, has a downward and backward direction. There is, however, this single objection to this mode of use, that if the head has not been seized with care, the blades may slip off suddenly and wound the posterior wall of the neck, vagina, or perineum.

II.

It is the general opinion of the present day, that the classical forceps is a poor instrument of reduction, and every-day practice demonstrates that it can hardly reduce the head many millimetres without greatly compromising the existence of the fœtus. An infant, which, in order to be born, must submit to a diminution of a centimetre in one of its cranial diameters, can readily be brought forth alive by the exertions of the organism; but it is almost surely lost if subjected to the forceps.

Art is, therefore, still far behind nature, and it is interesting to examine how it is that such different results are brought to pass.

Nature expels the head by leaving it at full liberty to turn toward the largest amount of space; the compression is slow, graduated, and the reduction is never carried beyond the point strictly necessary; the head is only compressed between two points, and while one diameter yields under the strain, all the others can easily expand. In other words, the *cranium is changed in form, without notable change in capacity.*

The Flemish lever,* in skillful hands, may very nearly imitate the natural mechanism, but it is not so with ordinary forceps. The head grasped in the direction of its length by the ellipse of the instrument, compressed

* Of the third class.

transversely by the blades and backward by the bones of the pelvis, can scarcely expand except in its vertical diameter; but this expansion does not sufficiently counteract a reduction, which is effected in all other directions by crushing. Alteration of form on one side, alteration of capacity on the other, such difference in the mode of action is sufficient to account for the difference in result.

From another point of view, the cephalic curvature, which allows the instrument to adapt itself to the convexity of the cranium, prevents compression at the desired locality. After a head has been laboriously extracted, the principal marks impressed upon the integument are found upon the face, where the effect has been exerted upon an irreducible diameter, while, at the same time, the parietal eminences have almost entirely escaped the action of the blades.

It is also essential to bear in mind that the obstacle at the superior strait nearly always consists in a shortening of the antero-posterior diameter, and that it is impossible to place the instrument there.

No doubt the head diminishes in volume under the force of energetic traction, just as iron is drawn out in the rolling mill, but at the expense of the resistance of the bony circle, across which it is dragged, and in direct opposition to the defective pressure of the instrument; the proof of this being that reduction is much more easily accomplished if, instead of binding the cranium with the steel hoops of the forceps, traction is made by means of an elevator fastened in the vertex; or, indeed, as Simpson has proposed, by means of a disk of leather closely adapted to the head by means of an air-pump.

It would, therefore, be advisable to renounce the forceps as an instrument of reduction, unless such modifications can be effected as shall remove, at least in part, these glaring defects. The process of determining rational modifications is very complex, since the following problems present themselves: How much reduction of the head is compatible with the preservation of the infant's life? What force can be exerted upon the mother and infant without too much risk? What form and what size shall be given to the instrument, in order to render it the most efficient and the least destructive?

Form of instrument. The best forceps is evidently that which in action will most closely imitate nature and diminish the volume of the head in the most harmless man-

ner. "However defective may be the contrivance of a forceps," M. Chassagny has said, "it will never be absolutely bad if the blades are long; but with short blades, the most skillful man will only be able to construct a forceps which will be detestable in every respect." He then demonstrated, by calculus and by most ingenious experiments, that the longer the blades of a forceps are, from the joint to the tips, the better they adapt themselves to the convexity of the head; the less prominent their cephalic curvature, the less oblique their compression, and consequently the less they are obliged to compress the head in order to retain it. On the contrary, the more the blades are shortened, the more they must separate in order to include the head; the more downward must be their curvature, in order to fit upon it; the more firmly must they be closed, to prevent slipping off, and the more they affect by their bite. Moreover, when held between parallel blades, the head can be more easily elongated than between crossing blades.

The genius of Palfyn, therefore, in 1721, gave a form to the handles of forceps from which it was unwise to deviate, and which reason now restores. To cross the blades was to shorten them, and this was to spoil them.

Reductibility of the fetal head. When a head is compressed with strong crossed forceps, it may be seen to be slightly flattened and elongated. The bones overlap and the scalp is wrinkled. If pressure is increased, the elongation becomes less and less apparent, and, strange to say, the overlapping disappears and the skin is put on the stretch. At first the brain, being thus forcibly compressed, resists in the manner of a fluid, and reacts in all directions. Under further increase of pressure, either the forceps bend, or the bones are broken, or the brain, reduced to pulp, escapes through the orbits, nares, sutures, and the occipital foramen. In this manner the head is rendered sufficiently ductile to allow of its passing through an opening of five centimetres, but evidently this is not the desired result; a reduction is desired which is less brutal, and which is compatible with the life of the infant.

Beaude locque made observations which are still famous upon nine fetal heads. Seized in selected forceps, these were reduced in different degrees, but always more than a centimetre, and the diameter perpendicular to the diameter of seizure was with difficulty elongated a few millimetres. Pétrequin, experimenting in the same manner,

arrived at quite different results, and ascertained a constant elongation proportional to the cranial diameter opposed to the diameter under compression.

The source of these differences, according to M. Chassagny, may invariably be found in the form and temper of the forceps employed. Had they been in agreement, however, these observations would still have failed to possess any considerable value in our estimation, for they were made in the laboratory, and under conditions which do not present themselves in nature. In order to become instructive and convincing, they should be commenced afresh within artificial pelves, which may register the compression of force applied regularly and uniformly, and by means of forceps of various sizes, shapes and tempers. Such were the experiments of M. Chassagny, and he arrived at the following results :

1. The same head having been seized by different forceps in the direction of its biparietal diameter, the reduction of this diameter was zero with the forceps of M. Pajot, five millimetres with the forceps of Hatin, and one millimetre with the forceps of M. Chassagny.

2. To obtain these varied degrees of reduction, the pressure of crossed blades was quadruple that which was used upon the forceps of M. Chassagny.

3. When the head was seized from a frontal eminence to the opposite occipital eminence, the greatest separation of sinus was 101 millimetres with the forceps of M. Chassagny, 115 millimetres with that of Hatin, and 130 millimetres with that of M. Pajot.

4. To draw the same head through the same strait, when it required a force of 18 kilogrammes with the forceps of M. Chassagny, it required 25 with the forceps of Hatin, and 30 with that of M. Pajot.

5. In artificial pelves with movable walls, where the forceps of M. Chassagny did not produce any separation, that of Hatin caused one of five millimetres, and that of M. Pajot one of eight millimetres.

6. During traction the lips of blades which were not crossed did not approach each other, while those of the forceps of Hatin approached six, and those of M. Pajot seven, millimetres.

7. Not only was the diameter of seizure reduced more, the force exerted and the compression sustained by the pelvis less, under the use of the forceps of M. Chassagny than with the two others, but also the brain of the infant would have sustained much less

injury, since an artificial head* filled with water, seized in turn by each of the three forceps, and drawn with equal force through the same pelvis, lost, during extraction, seven grammes of fluid with the forceps of M. Chassagny, thirteen with that of M. Hatin, and twenty with that of M. Pajot.

It is generally conceded that the vault of the cranium may yield, under certain conditions, and become level with the base; so, although a reduction of about† fifteen millimetres in the biparietal diameter may be dangerous, it is not, therefore necessarily fatal, and it is conceivable that an infant could be born alive from a pelvis of seventy-five millimetres. Yet we are not of the opinion that because an infant could be *expelled* it could likewise be *extracted* alive, for it is a matter of observation that the forceps can hardly reduce the cranium, even a few millimetres, without grave hazard to the existence of the fœtus, while nature may accomplish much greater reduction with less danger. We have, indeed, seen several women with pelvic measurement of seventy-five millimetres expel living children, while in previous labors the forceps had invariably brought forth their children still-born. To attempt to pull an infant at term through such a constriction was to expose it to almost certain death.

Perhaps, however, it may be allowable to hope that sustained mechanical traction, being less energetic and less brutal than manual labor, may yield more favorable results, and as it presents less gravity than all the other resources of art, the obstetrician is authorized in using it whenever insufficiency of uterine force is manifest.

* This head was of vulcanized rubber, solid in the portions corresponding to the base of the skull and the face, having to correspond with the cranial cavity; a vacant space was left, which could be filled with water. An opening allowed the water to escape during compression, and the quantity of water escaping afforded an exact measure of the diminution of capacity.

† We have used the expression *about fifteen millimetres*, because the biparietal diameter is never directly engaged in the strait, and it is in reality an oblique line near this diameter, but a trifle shorter.

Summary of Progress in the Medical Sciences.

I. SURGERY.

1. *Uniting Tendons by Suture.* FILLAUZ. (*The Medical and Surgical Reporter*, March 18, 1876.)

A laborer, fifty-four years old, sustained a lacerated wound on the dorsal aspect of the right hand. The extensor tendons of the fourth and fifth fingers were torn through. The wound healed in due time, but these fingers could not be extended actively. Two months after the injury, Fillauz, employing local anæsthesia, easily succeeded in finding the peripheral tendinous stumps, but the proximal stumps had retracted under the dorso-carpal ligament. The operator, therefore, dissected the tendon of the middle finger in which he made a longitudinal incision, through which the freshened stumps of the tendons were passed and fixed by wire suture.

The wounds having healed, the patient could extend all his fingers, though there was firm adhesion between the skin and the cicatrix of the tendon.

Reference is made to a second successful case.

2. *Treatment of Carbuncular Disease in Man by the Subcutaneous Injection of Anti-Virulent Fluids.* Dr. L. H. RAIMBERT. Translation by Dr. WM. C. DABNEY, M.D. (*Virginia Med. Monthly*, March 1, 1876.)

Raimbert tried the subcutaneous injection of carbolic acid, one part to fifty, in two cases of carbuncle, after other means had failed, and in one case the hypodermic injection of iodine, one part to five hundred, with favorable results. In the first case he was consulted on account of a malignant œdema of the face, by a farmer who, a week before, had lost a number of sheep with inflammation of the spleen. The disease first appeared as a number of small pustules behind the right ear, followed by a considerable infiltration of the cheeks, lips and structures beneath the jaw. On the third day, the white-hot iron was applied around the diseased part, a distance from it of from four to six centimetres, and the surface of the scabs was sprinkled with corrosive sublimate. On the following day, as soon as the swelling had diminished, Raimbert injected ten or twelve syringefuls of a two per cent. solution of carbolic acid into the whole extent of the cheek. The result was astonishing. The injections were repeated on the following day. The healing progressed uninterruptedly.

The second case was that of a farmer who, in opening a vein in a cow suffering from gangrenous inflammation of the spleen, had inflicted a slight abrasion of the skin of the left ring finger. Three days afterwards, he noticed at the point of abrasion a small papilla depressed in the centre, which the physician consulted declared was malignant pustule, and applied caustic potash. On the following day, there was considerable increase in extent and severity, and the swelling had been decidedly augmented by the use of the caustic. The swelling rapidly extended to the whole arm, which became so hard and tense that it was necessary to make incisions in both arm and forearm to lessen the tension.

On the fourth day, Raimbert saw the patient, and, mindful of the result in his former case, he injected nearly forty syringe-fuls of carbolic acid solution (two per cent.) in the whole length of the arm. The result was "brilliant."

The following day the arm was less hard; and the injections were repeated on this day, morning and evening.

From that time the improvement progressed slowly and steadily, so that at the end of two months after, the gangrenous part of the ring finger, a part of the back of the hand, and some parts which had become gangrenous at the seat of the puncture, had been cast off. All the wounds were found to be well healed.

In a third case, where the wife of a tradesman had been handling hides, the affection began as a small knob on the right cheek, the connective tissue around which had become infiltrated for a considerable distance, and from which a red band of lymph vessels ran directly to an enlarged gland behind the jaw. After removing the skin at the centre, the wound thus made was treated with corrosive sublimate.

The swelling had greatly increased on the following day, and was progressing towards the neck and eyelids; that evening, $4\frac{1}{2}$ syringe-fuls of a solution of iodine, one part to 500, were injected under the skin of the cheek and lower jaw. On the following day no change having occurred in the swelling, the injection was repeated, and on the next day there was a manifest diminution in the size of the part. The injection was again repeated, with marked and progressive improvement.

3. *Epithelioma of the Tongue and its Relation to Psoriasis of this Organ.*
Communication of M. TRÉLAT to the Surgical Society. (*La Tribune Médicale*, December, 1875.) Translation by WM. C. DABNEY, M.D.
(*Virginia Med. Monthly*, March, 1876.)

M. Trélat presented three cases illustrating a close relation between psoriasis of the tongue and subsequent lingual epithelioma.

In the first case the cancerous affection could not be arrested by surgical means. The patient rapidly succumbed to the well known complications of malignant affections of the organ in question. Very slight lingual psoriasis preceded the outbreak of cancer. In the second and third cases the relation of the two affections is as close as in the first.

4. *New Rhinoplastic Operation.* (St. Louis Clinical Record, March, 1876.)

Upon the authority of *L'Union Méd. du Canada*, the *Gazette Médicale de Paris* mentions a case under the care of M. Hardie where the skin of a finger was borrowed to furnish the soft parts for a new nose; and the phalangeal bone was utilized to form the solid portion. The patient was a girl aged 16 years. The alæ and a portion of the septum nasi remained. The improved nose made a good feature.

5. *Introductory at the Pennsylvania Hospital on Bonwill's Method of Inducing Anæsthesia.* ADDINELL HEWSON, M.D. (*Philadelphia Med. Times*, March 4, 1876.)

After a casual reference to the value of chloroform and ether in robbing surgery of the greatest of its terrors, the lecturer remarked that we are in want of measures to diminish the sensitiveness of a part, so that patients can be handled or examined with as much force as may be necessary to detect all the phenomena in their cases. In the most serious cases for manipulative examinations we have not heretofore hesitated to use ether and chloroform, but in many of them we should feel that we were in want of some means to be used without inconvenience or annoyance. This desideratum, Dr. Hewson believes is found in Dr. M. G. A. Bonwill's method of diminishing or allaying sensibility by rapid respirations. The confusion of sight and bewilderment of mind induced by a rapid and deep respiration after violent running, or blowing hard to ignite a fire, Dr. Bonwill associated with numbness of sentient nerves. Pursuing the subject, he has brought it to practical use in his profession, that of dentistry, in which he uses it constantly to diminish the sensitiveness of dentine, and even to produce such insensibility as to allow the extraction of a molar tooth without pain.

Dr. H. has employed the method in stitching wounds, in handling over-sensitive parts, in probings, and the like. The lecturer failed before the class in two cases in which he attempted to use Bonwill's method. The patients were both boys; neither would continue inspirations anything like long enough, three minutes being required. The want of success was due to great emotional excitement and possibly from the dread of the introduction of the sounding-board to be used in conjunction with the probe in the search for dead bone. Dr. Bradford, the reporter of the lecture, then volunteered to try the process before the class. It was his first attempt, and was made sitting erect, with his right hand resting upon the table. Breathing rapidly for about three minutes, was attended first with a tingling sensation of the surface, especially of the fingers, and a feeling as though the surface was swelling. Then there followed a dizziness or confusion in the head, with consciousness well preserved, but with a feeling of inability to resist or act in an independent way. He remembered well, being frequently asked by the doctor if he was hurting him, but had no recollection afterwards of the pin sticking him, much less of its having been firmly imbedded in his flesh, as he found it when he had ceased the rapid respirations and the anæsthetic effect had passed off.

6. *Amputation in a Diabetic Patient; Sudden Death.* VERNEUIL. (*Le Progrès Méd.* No. 22.)

A railroad employé, 52 years old, had his left leg crushed by a car. He was of robust and vigorous frame, in good condition for operative interference, and the indications for removal of the limb were clear.

The operation was accompanied by a rather abundant hæmorrhage, but the next night was passed comfortably and no traumatic fever followed.

The patient enjoyed perfect quiet until 10 o'clock of the day after, when a singular and rapid change occurred in his condition. He was found in the dorsal decubitus, with head thrown back, the eyes half closed, the features drawn, brown sordes about the teeth, a peculiar fetor of the breath, a yellowish hue of the skin contrasting singularly with the injection of the capillaries, cold and cyanosed extremities, oppression, subdelirium, incoherency, and extreme, incessant agitation.

It was then discovered that he had been long affected with diabetes mellitus; his urine was found to contain 35 per cent. of sugar; specific gravity, 1030. The temperature was soon, 37° C.; pulse, 140; respirations, 32. Death ensued during the night.

Post-mortem, the stump was found in an excellent condition. The cortical substance of the kidneys was double the normal volume, with prolongations into the pelves, separating the medullary substance into islets. There was some thickening of the capsules, with interspersed patches of a white color. Cretaceous tubercles were seen at the pulmonary apices, the lower lobes of the lungs being red, œdematous and friable. The liver was enlarged, reddish and granular, as in cirrhosis, but not indurated. The spleen was softened and pulpy under the fingers. Under the microscope, a granulo-fatty degeneration was discovered in the liver, kidneys and testicles. (The latter fact explains the impotence and aspermatism of diabetes.)

Verneuil justly concludes that operations should not be performed upon persons affected with organic visceral disease, except in cases where the lesions demanding operative interference are incurable by natural processes.

II. PRACTICAL MEDICINE.

1. *The Hydrotherapeusis of Croup.* WINTERNITZ. (*Aester. Jahrb. für Paediatric; Giom. della R. Accad. di Medic.* Jan. 30, 1876.)

The author attributes great importance to the paretic condition of the dilator of the glottis as a cause of the distressing dyspnoea, and believes that to this, treatment should be specially directed.

Reflex excitation of the respiratory centre is therefore to be accomplished by mechanical or other methods. Cold affusion of water of various temperatures is to be practiced over the integument, and, if this is

not sufficient, the author advises the use of the occipital douche. Four grave cases treated by this method are reported in full. W. invariably noticed, when employing the cold aspersion, that the force of the patient, well nigh spent, was reanimated, the cough was relieved, and the pulæ and respiration became more tranquil. The remedy was specially valuable in preventing death by suffocation, which was the more frequent issue when the natural resolution of the disease was awaited.

2. *Pneumatic Treatment of Pulmonary Disease.* SCHNITZLER. (*Rev. des Sci. Méd.* Jan. 15, 1876.)

The treatment by compressed air considered to be indicated in the following pathological conditions: 1. General feebleness of the respiratory organs. 2. Chronic catarrh of the bronchi. 3. Pulmonary catarrh and the first stage of phthisis. 4. Emphysema, where this treatment is generally very efficacious. 5. In certain cases of nervous asthma, that is, in cases where a minute physical examination cannot detect any morbid changes in the heart or lungs. 6. Thus far S. has made few experiments in treating by this method affections of the larynx, because the dyspnoea is not the predominant symptom, as in a small number of disorders of this organ. There are, however, examples where the inspiration of compressed air has been of service in laryngeal disease.

The pneumatic method can be employed also in cases of stenosis of the larynx which are not extreme.

In diseases of the heart, the author recommends inspiration of compressed air and expiration in rarefied air, but the results thus far are not highly gratifying, and, at the best, there was but a transient amelioration of symptoms. Occasionally signs of cerebral congestion occurred (dizziness, ringing in the ears, cephalalgia, etc.,) which necessitates immediate abandonment of the treatment.

3. *Sedative Solution in Whooping-Cough.* GUÉNEAU DE MANSY. (*Jour. de Méd. et de Chir. Pratiques.*)

Musk, three grains; potassic bromide, half a drachm to two scruples; cherry laurel water, one drachm and a half; syrup of ether, half an ounce; syrup of belladonna and syrup of codeine, of each, one ounce; syrup of orange flower, one ounce and a half. To a child eight to ten years of age, give a teaspoonful between meals, morning, evening and night. During the day it is not to be used, lest the narcotics recommended disturb digestion. The musk, if insupportable, may be omitted.

4. *Sleep of the Aged.* POPELAUER. (*Revue des Sciences Méd.* Jan. 15, 1876.)

Three forms: 1. *Continued sleep*, from which they must be aroused in order to eat, and to which they return immediately after. Appetite unchanged, obtuseness of intellect, loss of memory, prolonged sojourn in bed, gangrenous degeneration of skin. 2. *Diurnal sleep*, with agitation

when night falls, inability to find the bed which has just been abandoned, getting into another bed than their own. This is the sleep at the onset of senile dementia. 3. *Agrypnia* with complete insomnia—the precursor of a real affection of the mind. This condition is to be treated by opium in large doses, which, as generally believed now, rarely induces dyspepsia, cephalic congestion or collapse.

5. *Milk Diet in the Albuminuria of Pregnancy.* TARNIER. (*Jour. de Med. et de Chir. Pratiques.*)

For several years the author has submitted pregnant and albuminuric women to a milk diet, and has, as invariably, noticed the albuminuria disappear and eclampsia never occur. The cure of the albuminuria of pregnancy thus made possible, leads him to hope that in a large proportion of cases eclampsia may be prevented by the same measures. In point of fact, eclampsia almost never occurs except in albuminuric women; and often suddenly appears before the onset of labor, the latter following convulsive attacks, but so soon after that the physician recognizes at the same time the symptoms of eclampsia and the signs of labor. Although rare cases of eclampsia without albuminuria occur, it might be said that if we were in position to cure the albuminuria of pregnancy we should at the same time possess the means of preventing eclampsia.

In order to do this, the albuminuria must be attacked in time. Unfortunately the latter is insidious in its invasion and is sometimes manifested by no peculiar symptoms. T., accordingly, frequently examines the urine of all pregnant women in his charge, and as soon as albuminuria declares itself, he puts them on a milk diet as follows: 1st day, one litre of milk, two portions of food; 2nd day, two litres of milk, one portion of food; 3rd day, three litres of milk and a half portion of food; 4th and following days, four litres of milk, or milk *ad libitum*, without other solid or liquid aliment.

In grave cases, if some of the prodromata of epilepsy have occurred, this gradation is not observed, and the patients are placed at once upon three or four litres of milk daily.

The influence of the milk diet is speedily manifested, and, in eight or fifteen days, after the commencement of treatment, the albuminuria is either greatly decreased or quite removed.

6. *Remarkable Case of Peritonitis.* E. J. ABBOTT, M.D. (*Amer. Prac.*, May, 1876.)

In this case, with no knowledge of the previous history, the patient was known to have died with symptoms of subacute peritonitis, with effusion.

Post mortem—the whole peritoneal surface was found covered with a layer of lymph a quarter of an inch in thickness. There were no adhesions of any consequence. "There was found just below the splenic flexure of the colon, an irregularly shaped piece of porcelain, evidently

broken from a plate or dish." It was a fourth of an inch in thickness and must have required an opening in the intestine at least an inch and a quarter in length to allow of its escape. The opening of exit had entirely healed ; it could not be found.

7. *Diphtheria affecting the Nipples.* T. L. WRIGHT, M.D. (*Cin. Lancet and Obs.*, May, 1876.)

This case is of a woman 28 years old, who, a few days after confinement, began to have sore nipples. Soon the milk was drawn with difficulty and was pinkish in color. In two weeks there appeared frequently in the milk fibrinous, stringy masses that seemed to be organized casts of the lacteal ducts. The stringy masses grew more frequent, the flow was more obstructed, and finally, in three weeks from the birth of the child, and after the breasts had become swollen and painful and threatened abscess, the nipples became covered with a thick, dense false membrane. This was dissected off carefully when it rapidly reformed. The milk was now allowed to "dry up," yet the hardness and swelling did not disappear, although the size was lessened. At the end of six months and after cancer had been feared, an abscess formed in the right breast and discharged for a week, afterward the breast became atrophied. "Associated with this fibroid condition of the right breast was a constant and severe pain in the right arm." While the difficulty was going on in the breast, there appeared an indolent swelling of the size of a hazlenut on the lower and back part of the radius. This afterward became an open sore, and discharged pus and pieces of bone. Dr. W. regarded the mammary affection as diphtheritic.

8. *A Case of Pica.* A. N. GOULD, M.D. (*Boston Med. & Surg. Jour.*, April 13, 1876.)

An unmarried woman, 43 years old, had had generally through life good health. Menstruation had been normal until within a year, when it had become profuse; the first of the flow was "muddy" and the last colorless. For two years she had had longing for unnutritious articles. At first she ate charcoal, afterward, fine sand. She would eat three or four tablespoonfuls in a day, and hardly a day passed when she did not eat some of it. She declared she had eaten "nearly a bushel" of the sand.

She had gained flesh while eating this substance, although she had some dyspnea on going up stairs, had pale lips, and was constipated. When supplied with carbonate of iron to eat, she did not crave the sand.

III. OBSTETRICS.

1. *On Laceration of the Gravid Uterus.* J. ASHBURTON THOMPSON.
(*Obs. Jour. of Great Britain*, Jan., Feb. and March, 1876.)

The majority of obstetric writers agree upon the following seven symptoms as being characteristic of laceration of the gravid uterus; viz.:

1. Violence of the throes before rupture.
2. A peculiar pain at the time of rupture.
3. Hæmorrhage.
4. Immediate cessation of the throes.
5. Retrocession of the presentation.
6. The speedy occurrence of collapse.
7. Convulsions.

Most writers agree further, in omitting a consideration of exceptional cases of rupture; thus allowing the inference that the typical case of rupture occurs the most frequently. This paper is an examination of twenty-three cases of laceration of the gravid uterus; not selected cases, but cases collected from journals and Societies' transactions, between the years 1857 and 1873. In the paper this series of collected cases is examined with reference to the occurrence of the typical symptoms in the order which has been given:

Of the Character of the Throes preceding Rupture.—In eleven of Thompson's cases, the throes appear to have been of the usual kind. Of seven others it was uncertain whether there was a regular contraction of the uterus at any time. In four other cases, the laceration was traumatic, occurring under operation. In five other cases, the throes were variously modified. "Thus, omitting the seven cases already excepted, in five out of sixteen the throes were modified before rupture occurred; but from these five the last must be subtracted, if this symptom be regarded as a prognostic, for it was only the throe attended by rupture which was at all peculiar. 26.6 is the percentage, then, in which the throes were peculiarly aggravated before rupture in this series of cases."

Of Pain occurring at the time of Rupture.—The pain caused by the tearing of the uterine substance has been described as sudden, and excruciatingly sharp. Should it occur at the moment of contraction of the organ, this pain constitutes an element which is clearly distinguishable from the ordinary throe. This pain did not occur in the four cases of traumatic rupture; excluding these cases, in eleven of the nineteen remaining cases, this peculiar pain was not observed. In eight cases this tearing pain was noted, but the word "excruciating" seldom occurs in these clinical reports. In about 58.5 per cent., then, of the cases of laceration, a peculiar pain was not observed.

Of Hæmorrhage.—This may be either external or internal. External hæmorrhage is a rare consequence of rupture. It is spoken of but once in this series; in this instance it occurred before labor set in, and might have been of the variety known as accidental hæmorrhage. Internal hæmorrhage is more common, but it can be of but little utility as a diagnostic.

In a very interesting case of Dr. Jolly, a rapidly growing tumor was observed within the abdomen during labor; the bladder being empty, Dr. Jolly was led to surmise that a rupture had taken place, and that the tumor was a collection of blood in the peritoneal cavity. This proved to be the case. As a rule, the effusion is too small to be discovered before death. On the whole, then, hæmorrhage occurs but rarely; though it is reasonable to suppose that hæmorrhage would be inevitable if the vaginal portion of the uterine cervix, or the vagina itself, be also involved in the rent.

Of the Action of the Uterus subsequent to Rupture.—The greatest stress has always been laid on the sudden cessation of uterine action as a diagnostic of rupture; and but two writers, (Leishman and Jolly) have written of exceptions to the rule. Of the present series of cases, four, the traumatic cases, must be omitted. In two of the remaining cases the point is not noted; this leaves a remainder of seventeen cases. Of these, in nine cases the throes ceased suddenly upon rupture. In eight, the throes were either modified in some manner, or they remained unaltered. In but 52.9 per cent. of the cases, then, a little more than one-half, the throes ceased in a characteristic manner.

Of Retrocession of the Presentation.—At most, this can only be regarded as confirmatory. The presenting part of the fœtus cannot recede provided the head is impacted in the excavation; nor will the body of the fœtus recede if the head is in the world. Further, if the uterus should contract spasmodically after the rupture, the fœtus will not escape into the abdominal cavity, even though the rent be large enough to admit of its passage. If this series is analyzed with reference to this symptom, it will be found that the fœtus receded in four instances. In six other cases retrocession was not noted. In two cases the fœtus did not recede, the head being impacted. In one case, the expulsion of the head coincided with the rupture, no retrocession. And in three other cases there was no retrocession of the presentation, though the rent was large. In four cases the rupture occurred during operation.

Of the speedy occurrence of Collapse.—This symptom has been thought as characteristic of rupture as the sudden cessation of the throes. In three of these cases, the time when the collapse occurred is not noted. It is doubtful in another. In another the patient was under the influence of chloroform, and collapse was not observed; for this reason this case is omitted, though it might fairly be included because another case is included under similar circumstances, when collapse did occur, and was thought to be due to the anæsthetic. In the eighteen remaining cases, collapse occurred suddenly upon the completion of the rupture in six instances. In six other cases, it did not occur till hours or minutes after rupture. Collapse did not occur till hours or minutes after labor in six other cases. In but six of the eighteen cases, in but 33.33 per cent., did collapse suddenly supervene upon the rupture. In one case, the patient was standing upright when first seen, and rupture of the uterus was not suspected for some time afterward. In this series of cases, the degree of

collapse bears no sort of relation to the extent of injury which the uterus has suffered. * * * "The evidence of shock manifested in any particular case will depend upon other circumstances than the size of the wound, or, probably, the mode in which it occurs. It may be that the chief of these circumstances is the vital energy of the individual, which varies in each person; and with it the rate at which collapse appears may be expected to vary too. Cases are on record in which the fact of laceration has been discovered accidentally during a vaginal examination; no symptoms of any kind attending or ensuing upon it."

Convulsions.—In this series of cases convulsions have not once been noted.

From an examination of this series of cases of Thompson's, it is evident that the description in the books of a typical case of laceration of the gravid uterus cannot be applied to the majority of cases of this injury. In other words, the so-called typical case occurs but rarely, while the cases that are but barely hinted at by a few writers as exceptional, do occur more frequently than the former variety.

The medico-legal application of the foregoing facts, which is the author's real object, is of the greatest importance to practitioners of obstetrics. "In order to establish the culpability of the attendant, one has a right to demand that it should be shown, first of all, that no predisposing cause of rupture existed; and only in the second place will it be necessary to show that the determining cause was some other than the contraction of the uterus itself." The remote predisposing causes are previous laceration, Cæsarian section, and peri-uterine inflammations. The latter especially, changing the integrity of the uterine walls, rendering them liable to give way under the most trivial exciting causes. Thus in one case, the sudden contraction of the abdominal muscles, which the subject exercised to save herself from falling, was sufficient to rupture the uterus. In a case of Dr. Barnes, the uterus was lacerated spontaneously; there being apparently no change in the uterine substance. To exclude all predisposing causes in a given case, the strictest inquiry into all the antecedents of the patient is essential, especially with reference to any previous pelvic inflammation.

In the second place, before it can be said that any operative interference on the part of the attendant caused the rupture, it should be established that a rupture did not exist before the interference was made. This is not always easy, and requires the closest examination of all the symptoms which occurred during labor before the operation. Without doubt, one of the most important points to be established is the size of the fetal head, and the capacity of the woman's pelvis. When the disproportion between these structures is excessive, the danger of rupture is not so great as under other circumstances where the disproportion is slight, but not great enough to prevent the entrance of the head into the excavation, pushing a cap of the uterine tissue in front of it, and pinching the latter between the head and bony parts of the woman. It is then that, after a time, the uterine walls become weak and give way during a contraction.

2. *Case of Tubal Pregnancy.* JOHN COOKE, M.D. (*West Virginia Med. Student*, April, 1876.)

The subject, aged 35 years, multipara; last pregnancy thirteen years before. Her catamenia did not appear in June, though she had no morning sickness or other evidences of pregnancy. July 6, while ironing, she felt a sharp pain in the right iliac region, which soon subsided. During the evening of same day, while walking, she was again seized with pain in the region of right ovary, soon extending over the lower region of the abdomen. When first seen she was suffering from great pain in the abdomen, and physical prostration. Next morning she was free from pain; increased tenderness over lower abdominal region; countenance anxious and pinched. In the evening, pain had returned; restless; extremities cold; pulse small and rapid. The second morning, general condition not changed; there were now evidences of peritonitis. Tubal pregnancy, with rupture of the sac, was spoken of but not agreed upon by the counsel.

Patient died sixty hours after the first attack. At the autopsy, fully six pounds of coagulated blood was removed from the abdominal cavity; bowels distended with gas but not inflamed. The right Fallopian tube was much enlarged and inflamed; upon its anterior inferior surface, about one inch from the fimbriated extremity, there was a rent, one and one half inches in length, through which a six-weeks fœtus had escaped.

3. *Eclampsia from Mastitis.* DR. PANTHEL, Ems. (*The Clinic*, April 8, 1876.)

The woman, aged 25 years, had never had convulsions. About a year after marriage she gave birth to her first child after an easy labor. There was nothing abnormal about the puerperal week, except that she had scarcely a trace of milk, though her breasts were well developed. The child died at the end of four weeks. The woman had perfectly recovered, and was attending to her household duties. Six weeks after her confinement, she was suddenly seized with convulsions. During the visit of her attendant she was again attacked while speaking; her head was extended, eyes fixed, and her whole body was thrown into tonic and clonic spasms; there was complete loss of consciousness. The attack lasted about a quarter of an hour. Upon recovering from this attack, she complained of unpleasant sensations in her head and right breast; this organ was hard and inflamed. The attacks recurred at varying intervals for the space of four days and nights; at the end of this time, the mammary abscess had matured. The first convulsion was on Tuesday, and on Saturday morning the abscess was opened; the woman now rapidly recovered. The convulsions resembled those seen in the puerperal woman.

4. *Conception forty hours after Abortion.* SPARKMAN. (*Charleston Med. Jour. and Rev.*, April.)

The subject was about twenty-six years old; married. She had had four children and three abortions. The writer speaks of her as being

"of ardent temperament, very domestic, and devotedly attached to her husband." About four hours before her attendant's visit, she aborted a two-months foetus. Twenty-seven hours afterward, she reported herself as follows: "I have been perfectly *dry* since morning and never felt better in my life." Her husband left her the following morning, and was absent for twenty-two days. Three weeks subsequent to the abortion, she consulted her attendant concerning a nausea which she had suffered for three weeks; she feared she was pregnant; and so she proved to be, for her attendant delivered her of a ten-pound baby two hundred and seventy-eight days from the time of the first visit after the abortion. The woman and the husband admitted sexual intercourse on two occasions during the two days following the abortion.

5. *Twins with different Birthdays.* KOLLOCK. (*Charleston Med. Jour. and Rev.*, April.)

Dr. Kollock writes to the above Journal "that a negro woman was delivered, Oct. 3, at 5 P. M., of a living child, and he was called to her on the 4th, at 6.30 A.M., to deliver her of another, which was born fourteen hours after the first."

IV. THERAPEUTICS.

1. *Spider Web or Tela Araneæ in Chronic Intermittents.* L. M. JONES, M.D. (*Cin. Lancet and Observer*, May, 1876.)

Being at his wit's end, in treating a rebellious case of intermittent in a girl ten years old, with *quinine*, *camphor chinoidine pills*, *arsenic*, *eucalyptus*, *iodine*, phosphoric acid, etc., etc., with unsatisfactory results, Dr. Jones determined, upon Dr. Robert Jackson's recommendation in the U. S. Dispensatory, to use spider web. He then says:

"Accordingly I went to the drug store and had some prepared in the following manner: Went with the druggist to the cellar (as it is the species of spider that inhabits cellars or dark places, that possesses medicinal properties) and with a stick I gathered cobwebs until I had a wad or bunch the size of a large-hulled walnut.

"This we put in a bottle with four ounces of good whisky, which was allowed to macerate for forty-eight hours, when it was filtered, and the liquid poured into a bottle. I carried the medicine to my patient, and left the following directions: Begin four hours before the expected chill, and give a teaspoonful every hour, until she had taken four doses, then a teaspoonful before each meal and at bedtime, until all was taken. The medicine was given as directed. The anticipated chill came, but was very light compared with the others. This, however, was the last chill that she had, which has been over four months since.

"Her general appearance has improved, color of skin is clear, the spleen

has returned to nearly its natural size, bowels regular, appetite good ; in fact, the child has so far improved that her friends call her well.

"The patient and relatives did not know what she was taking, and are still ignorant of the subject, so that the mind of the patient had nothing to do in the performance of the cure.

"I gave her the second bottle of the medicine, to be certain that the cure was effectual.

"I have since used the remedy in other cases, with the same success, and would ask that the profession give the remedy a trial in the various intermittents. I will offer no comments on the case that I have cited, or give any theory as to the action of the remedy, but shall leave the reader to his own views. I give a history of this case because I considered it an interesting one in several particulars ; also was particular in giving the treatment, that a comparison might be made in the remedies used and the results obtained ; and that the reader might see for himself that the treatment adopted by the writer was a varied one. I will add, in conclusion, that either of the prescriptions given will break up an ordinary case of intermittent fever, chronic or not."

2. *Pomegranate Bark for Tape-worm.* PROF. EDWIN FREEMAN, M.D.
(*Etc. Med. Jour.*, May, 1876.)

I succeeded in obtaining a tape worm entire, with its head, from W. S., of Avondale, which had resisted the use of a good many medicines during five years before I began to medicate its possessor for it. The worm obtained was thirty-four feet long, when it came away. Mr. S. said that he passed, at some past time, forty-two feet in one piece, but the head remained, and he has every day passed several inches, for at least three years. While he had the worm he was a large eater, and seemed to require, besides, a quart or two of coffee every morning. It caused him, at times, to be faint and dizzy, with occasional headache and weakness and sluggishness in the morning. In addition to this, there were occasionally nausea and fullness of the stomach. The best evidence of the presence of tape-worm is the passage, with the fæces, of portions of one.

Treatment.—I gave him, the first thing in the morning, two seidlitz powders, which thoroughly evacuated the bowels. I then gave him morphia sulph. gr. ʒ. In an hour he began to take the pomegranate, a decoction of the bark, four ounces every fifteen minutes, until it was all taken. The decoction was prepared by the chemist, J. U. Lloyd, from the best bark, according to the formula published by Prof. Locke, in a former number of the E. M. Journal, and mixed with fluid extract jalap, dr. j.

After the third dose the worm was felt to have lost his hold on the bowel, and to be low down. The fourth dose was not taken until an hour after the third, hoping that the worm would surrender and come away. It was stubborn, however, but at the last dose submitted unconditionally, like Davy Crockett's 'coon, coiled himself into a knot, and got down and out.

The dose is a fearful one to swallow, but for those who can take it, it is effectual in ridding them of a very annoying trouble.

3. *Choleate of Soda as a Preventive of Gall Stones.* WM. C. DABNEY, M.D. (*Amer. Jour. Med. Sci.*, April, 1876.)

The article and its use, indicated above, were recommended by Prof. Schiff, of Florence, in 1874. Dr. Dabney has used it in three well-marked cases of biliary calculi diatheses, with extremely satisfactory results. The attention of physicians who have under their care any patients suffering regularly from gall-stone colic, is called to this agent. It is used in 5 to 7-grain doses, twice daily, and is a perfect solvent of the cholesterine and mucus which compose the "stones." It will prevent future attacks of colic, but will not relieve a fit of it when it is once precipitated.

V. DERMATOLOGY AND SYPHILIS.

1. *Syphilitic Headache and Neuralgia Cured by small and repeated Doses of Calomel.* PETER. (*Lancet*, July, 1875.)

The author gives the details of several cases treated in the manner recommended by Trousseau, viz.: giving about one-sixtieth of a grain of calomel every hour. The interesting features of this method of medication, as described by Dr. Peter, are: 1, The rapidity of its action; 2, The fact of its success in cases where the really specific treatment of syphilis fails. It constitutes, in a manner, *the* medicine of nocturnal syphilitic pain, but cannot replace the other plan of treatment for other syphilitic manifestations. Its use is indicated whenever the pain is intense and induces asomnia. It diminishes pain and its consequences the very first night it is given, and generally extinguishes suffering by the second night. The treatment may be carried on for three days, and that period of time is almost always enough for its success. If, however, the desired result has not been obtained, it ought then to be suspended for one or two days, so as to prevent salivation, and it can then be resumed afterwards for two days successively, in which case Dr. Peter has never seen it fail.

The plan of treatment is thought to be efficacious, because: 1st, The drug is mercury; and, 2d, The absorption of these very small doses is exceedingly rapid, and the repetition of the action takes place every hour. Whatever the action may be, adds Dr. Peter, it is to Trousseau that we are indebted for the idea of using calomel in this manner, and to him belongs all the credit.

2. *Herpes Zoster Gangranosus Recidivus.* PROF. KAPOSI. (*Wiener Med. Wochenschr.*, 1876, No. 1.)

At a meeting of the Vienna Society of Physicians, in November, Prof. K. exhibited a unique case, a patient who has had an eruption of herpes in the course of the same nerves (cervico-brachial plexus) five-times within eighteen months, and whose herpes always assumed a gan-

grenous character. The first eruption (right forearm, shoulder and sternum) was observed in April, 1874; the second (the same as the first) in June, 1874; the third (forearm and lower part of arm) in January, 1875; the fourth (like the third) in June, 1875; and the fifth in October, 1875. On October 17, the patient, a woman, aged 44 years, experienced sharp pains in the right arm and shoulder; on the 19th, the herpetic eruption began, and on the 20th already extensive gangrenous patches existed. October 21, Dr. K. found a greenish-black eschar, with ragged outlines, about the size of a silver dollar, on the right shoulder, and a number of smaller brownish eschars in its vicinity. The spinous processes of the seventh cervical, and of the dorsal and lumbar vertebrae, were painful and very tender to the touch. Oct. 22, violent pain in the right arm and shoulder; at the upper border of the scapula were two red and swollen patches of the size of a silver dollar, with numerous vesicles, isolated and grouped together, and minute eschars. Oct. 25, the vesicles are drying up. Oct. 28, to the right side of the spinous process of the second dorsal vertebra a small group of vesicles, from which a red stripe, two inches and one-half in length, and one inch in width, extends upward beyond the border of the scapula. Upon that stripe numerous vesicles appeared, which, on Oct. 31, were again in a state of desiccation; on the same day an herpetic eruption in the region of the sixth rib. In all eruptions the great tendency to gangrene was noticeable.

3. *Psoriasis of the Tongue.* TRÉLAT. (*Jour. de Med. et de Chir.*, Jan., 1876.)

The connection between lingual psoriasis and epithelioma, is illustrated in three cases. A patient with his tongue covered by psoriasis was operated upon one year later for lingual epithelioma, and died soon afterward. A second patient had at the same time epithelioma of the border of the tongue and extensive psoriasis upon the other surfaces of the organ. Ablation was not followed by its return. In a third case, a man affected with lingual psoriasis for six years had removed from his tongue a vegetating growth having the microscopic characters of epithelioma. This does not go to show that the diseases are identical, but that both may be produced by similar irritation.

4. *Alteration of the Colors of the Hair and Skin after Scarlatina.* DR. WALLENBERG. (*Vierteljahresschr. f. Dermatol. und Syphilis*, III, 1.)

H. W., aged 21 years, had a violent attack of scarlet fever, which was remarkable for the copious serous exudations in the skin. Almost over the whole body the epidermis was raised from the cutis, as though large blisters had been applied. The epidermis was thrown off in large flakes, and the exposed Malpighian layer healed over slowly with a new epidermis. The patient lost all the hair of the scalp, beard, genitals, eyebrows, eyelashes, and the nails of his fingers and toes. But the most

remarkable feature of this case was, that the patient, who had a dark complexion and dark brown hair before his sickness, exhibited, after the scarlet fever, the whitest hair and the fairest complexion that were ever observed in an albino. His skin, also, had become exceedingly sensitive, so that the irritation of mercurial ointment, or exposure to the direct sunlight, repeatedly occasioned eczema with subsequent cutaneous desquamation.

5. *Anatomy of Lupus Erythematosus*. PROF. ED. GEBER. (*Vierteljahresschr. f. Dermatol. und Syphilis*, III, 1.)

Pieces of lupous skin, taken either from living or dead bodies, were examined at once or hardened in a solution of chromic acid and diluted alcohol. The slides were colored by carmine or Leonard's ink, and then put in glycerine. The professor gives a detailed description, illustrated by lithographs, of the anatomical changes of the integument during the incipient, progressive and retrogressive stages of lupus. The substance of this report may be given as follows: The morbid process begins with a dilatation of the capillaries in the cutaneous papillæ; the cells constituting the walls of these distended capillaries become enlarged, and project into the lumen of the vessels, thus disturbing the smoothness of their walls. The current of the blood is diminished, and the blood cells accumulate until they densely fill the capillaries, when the leucocytes begin to emigrate through the walls of the vessels. In the next stage, therefore, clusters and heaps of lymphoid cells are found to surround the capillaries and small vessels, and to penetrate with them into the neighboring connective tissue of the cutis; and also to invest and crowd into the follicular structures of the skin. These products of proliferation, however, subsequently undergo a fatty degeneration, and are reabsorbed. According to the duration and intensity of the disease, the affected cutis exhibits the appearance of a more or less atrophic state.

The result of Prof. G.'s researches agrees very perfectly with what Dr. George Thin said of the histology of lupus erythematosus (*London Lancet*, Jan., 1875): "There was enormous dilatation of the capillaries, which was most marked in the papillæ and around the sweat glands, the contour of the capillaries being mostly indicated by red blood corpuscles, with which they were filled, but the vessels themselves being visible in some of the sections. * * The fact that this condition of the capillaries was found in such an early stage of the disease, and before any other changes, and that it could, if persistent for any length of time, give rise to all the changes described by other observers, led me to doubt whether lupus erythematosus primarily affects the glands of the skin."

6. *Rheumatismal Bullous Erythema with Aphthous Fever*. FÉRÉOL. (*La France Médic.*, Dec. 20, 1875.)

A woman fifty-two years old had been subject to intense neuralgic pain accompanying the menstrual epochs, and at twenty-six suffered from severe acute articular rheumatism, with cardiac complications. Great difficulty in

motion had resulted and lasted for two years. A suppurating peri-uterine phlegmon opened into the rectum at thirty. A deep abscess of the thigh and possibly of the iliac fossa, consecutive to a contusion, had also occurred. A brick dust deposit in the urine, when noticed, was always accompanied by better general health. The menopause occurred normally at fiftieth year, with some hæmorrhoidal tumors. Some sweating and itching of the skin had been noticed. Appetite, digestion and stools normal. Father and mother were rheumatic.

On Aug. 15 there were slight traces of buccal aphthæ without pyalism. A bimanual eruption was found, insupportably painful, producing insomnia and a cerebral excitation akin to delirium.

From the points of the fingers to a short distance above the radio-carpal articulations, the skin was uniformly of a vinous red color, as if stained with raspberry juice. The line of demarkation was distinct and brusque at the wrists without any elevation of the skin. The color faded to a yellowish shade under pressure, never completely disappearing. Over the fingers the skin was tense and smooth, as if stretched over wood, with obliteration of the natural folds, but no œdema. Over the hand it was also non-œdematous, but swollen, as if infiltrated with a dense liquid not easily displaced by pressure—the latter requiring to be made with gentleness, on account of the severe pain it elicited. Over this uniformly red surface were three or four points on each hand, where pemphigoid bullæ appeared—irregular and elongated, but of moderate dimensions.

ANNOUNCEMENTS FOR THE MONTH.

MONDAYS. SOCIETIES.

Mondays, July 3 and 17—Chicago Med. Society, regular meetings at the Washingtonian Home, 8 P. M.

Mondays, July 10 and 24—Chicago Society of Physicians and Surgeons, regular meetings at Grand Pacific, 8 P. M.

FRIDAYS. SOCIETIES.

Friday, July 14—State Microscopical Society of Illinois, regular meeting at the Academy of Sciences, 8 P. M.